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CANADA

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OF

MEDICAL AND SURGICAL SCIENCE

EDITED BY

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CANADA
MEDICAL & SURGICAL JOURNAL

AUGUST, 1878.

PYÆMIA AND DEATH FOLLOWING THE CUTTING OF A CORN.

BY OLIVER C. EDWARDS, M. D.

(Read before the Medico-chirurgical Society of Montreal, May 31st, 1878.)

On Wednesday, March 6th, I was called to see S. S., a young man aged 19, residing in Prince street. On enquiry the following facts were given me of his previous history. He had had an attack of pneumonia three years prior to his present illness, otherwise he had enjoyed excellent health. He was one of a family of thirteen, two of whom had died in infancy. Father and mother are living. He had been engaged as a printer for five years, and for the past two years of that time has been working in a well-ventilated office in this city. The house in which he was lodging was comparatively comfortable and neat, but the street is low-lying, and the drainage defective. He had lost much sleep during the winter, from an over indulgence in dancing, often dancing all night—this taking place on an average two nights a week. Three days before his present illness he danced all night in a very warm room, and perspiring freely. He slept for about half an hour in his damp clothes, and then went to his work at the usual hour. I was also informed that on February 27th, while in the act of shaving down a corn on the little toe of the right foot, with a razor, he accidently cut too deep, and the wound bled somewhat freely. Having bound up the toe he went about his work as usual. On Saturday, March 2nd, he complained of pain in the toe, and noticed it somewhat inflamed. On the following day the pain

was more acute, and the inflammation had extended up the foot for a distance of three inches. It was also noticed that a few drops of pus had formed around the corn on the little toe. A bread and water poultice was applied and the pus discharged. The pain was so acute on the evening of that day, that having gone to a friend's house he was obliged to be assisted back to his home. He also felt a slight pain extending up the inner side of the leg and thigh.

On Monday March the 4th the painful sensations had ceased entirely in the right leg, and the inflammation had entirely passed away from the foot, but he now experienced a very acute pain in his left hip and joint. Fever came on during the day and perspiration, which became very profuse at night-time, but no chills.

On Wednesday, March the 6th, I saw him for the first time. Found him lying on his right side, which position he had retained for the past two days, the left leg somewhat flexed—face expressive of much anxiety, and complained of great pain in the left hip-joint, the character of which he described as "like the beating of a blacksmith's hammer." There was no swelling about the joint, but it was tender to the touch. He complained also of a slight pain in the popliteal region of the same leg. Pulse, 100; temperature 100 2-5°. Tongue coated but moist.

Knowing that the patient had, two nights before his illness, exposed himself to cold by dancing, perspiring freely, and afterward sleeping in his wet clothes, and thinking that the slight accident in cutting the corn on the little toe was a mere coincidence, I at first judged this to be a case of inflammatory rheumatism, of a kind which is sometimes present, the pain confined to one joint, no appearance of swelling, and the pain most excruciating. Accordingly, I administered at the first visit a hypodermic injection of morphia, and put him on the salicylate of soda, 20 grs. every three hours, powder of morphia to be given at stated intervals, and ordered hot applications to the joint, and nourishing liquid diet.

March 7th.—Perspired very profusely during the previous night, his bed-clothes and shirt saturated. Appears, however,

more comfortable, pain is considerably relieved, but the temperature is no lower.

8*th.*—Temperature 101° ; pulse 104. Though the medicine is given carefully and regularly there is no diminution in the temperature, but the opposite. His sleep is very much disturbed. During the following week the symptoms continued much the same. Having had misgivings on my mind that possibly the trouble in the joint might be of Pyæmic origin I had each day made careful enquiry for any history of rigors, and had closely examined the painful part for any evidence of an abscess, but could detect none.

12*th.*—Temperature 101 2-5°. Pulse 110°. Retains the same position on his right side, and cannot bear to be placed in any other position. His sleep is exceedingly restless and delirium is present, but not constantly.

13*th.*—Morning temperature, 101 2-5°. Pulse 116. Evening temperature 102 2-5°.

15*th.*—Morning temperature 102 1-5° Evening 103 2-5°. His bladder is excessively irritable; scarcely able to retain even a few drops of urine.

16*th.*—Had during the night very severe bleeding at the nose. He has, however, been often subject to this before. Patient is evidently much worse to-day. Face expressive of the greatest anxiety. Pulse 128 and very irregular. Temperature in the morning 103 1-3°. Tongue dry and clammy. I ordered brandy, a half ounce every three hours, and substituted quinine in the place of the salicylate of soda. Dr. Fenwick saw him in consultation with me and regarded the case as one of pyæmia. There was not however, as yet, the slightest evidence of pus. The pain in the hip joint is very severe ; the opiate has lost its power though administered in increasing doses from the beginning. He also complains of great pain and tenderness over the scrotum. The quinine was directed to be given—5 gr. dose three times a day. Temperature that evening 104°

17*th.*—Morning temperature 102 2-5°. A rash not unlike measles is now present on the back and forehead. The perspi-

rations have continued from the first very profusely, especially at night time. Has also complained of a feeling of coldness, but has never had anything like a chill. Pulse to-day is firmer. A bed sore has formed on right hip. Continued much the same on the 18th and 19th. Has attacks of epistaris each night, which, however, are controlled by snuffing up a solution of iron. On the 19th, the bowels moved three times, a little more liquid than natural. Up to this date there had been a decided tendency to constipation.

20th.—From the fact that circumstances prevented his being properly nursed, he was to-day removed to the General Hospital, and placed under Dr. Fenwick's care, to whom I am indebted for the facts of the case up to the time of his death, which took place ten days after admission. On the second day after his admission, a swelling of considerable size was seen over the sacrum, corresponding with the part where he had suffered such acute pain. This abscess was opened. At this stage of the disease the patient was placed lying on his belly, owing to the great pain in his back and the bed sore on his right hip.

Wasting progressed rapidly; he was delirious during the night, and there was a tendency to picking at the bed-clothes. A second abscess formed in the vicinity of the hip-joint, which was opened and discharged freely. The day following, (April the 1st), he died. Unfortunately a post mortem examination was not afforded, as the body was removed to Belleville *before such investigation was possible.*

It is a matter of interest to notice such a formidable disease as Pyæmia, arising from such a slight cause. Certainly it is a disease to be dreaded in all major operations, but how very unusual to see it follow the presence of a few drops of pent-up pus in such a superficial place and from such a small accident as cutting a small corn too deeply. In looking into the subject I find that pyæmia in private practice and from slight causes was made the subject of the inaugural address by Mr. Prescott Hewitt, at the Clinical Society of London, in 1874. It may be of interest in connection with the present paper to cite some of the cases which Mr. Hewitt reports:

"A hale old gentleman close upon 80, who had long enjoyed excellent health, had a small warty growth on the skin just over the tendon Achilles. This was removed, as it chafed him in walking. After laying up for a few days and the trifling wound was all but healed, he was allowed to go about a little, but being of active habits, he one day took a longer walk than usual. This was followed by some slight inflammation of the skin, which, however, soon subsided. He was on the eve of returning to his usual avocation, when rigors and sweatings appeared. Then came an immense, deep-seated abscess in the thigh, under the constant drain of which he ultimately sank."

In another case, the removal of a small sebaceous cyst of the scalp was followed by erysipelas, pyæmia and death.

Another case of a gentleman residing in the country, supposed to be suffering from acute inflammatory rheumatism in both ankle joints, but which proved to be pyæmic abscesses. Here the cause was suppuration about the tonsils. This patient at that time recovered, but four years later he died of pyæmia, following the removal of a small warty growth from the scrotum.

Another interesting case was that of a young woman who had run a needle into the fleshy part of the leg. It was afterwards removed, and nothing more was thought about it till a few days later, when the spot became painful. A tiny abscess formed which was attended to, but she shortly after had rigors and profuse sweatings. She ultimately recovered, but was five months confined to her bed.

Other cases equally interesting are recorded, as from the pulling of a tooth, or resulting from periostitis of the tarsal bones, from being tripped up in the street; also, cases following or associated with gonorrhœa.

In the case presented to the Society this evening, there was an absence of all rigors, which is one of the distinctive evidences of the disease. He complained of being chilly, especially at night-time, but he never had a distinct rigor. There was the absence also of much fluctuation in the temperature, which is so markedly present in pyæmia. The morning and

evening temperature ran a pretty definite course. It is worthy of note that many cases of pyæmia in its early stages have been mistaken, as was the present one, for Inflammatory Rheumatism. In the *Pathological Transactions* Vol. 13, page 189, Dr. Bristowe, of St. Thomas' Hospital, makes this remark in a report of five cases of pyæmia, the result of necrosis, which had been mistaken for inflammatory rheumatism:

"The patient is attacked, not necessarily as the result of accident, with slight rheumatic pains in the course of one of the bones. The disease at first mild, soon becomes severe; swelling and tenderness soon manifest themselves more or less obstinately. The aspect of the patient is that of a person suffering from inflammatory fever. Soon, however, in a large proportion of the cases, symptoms bearing a superficial resemblance to those of typhus, typhoid or even delirium tremens, set in. pyæmia has become established, and the patient rapidly sinks."

In connection with the treatment of this most formidable disease, there is a statement made by Mr. Durham, of Guy's Hospital in the *Lancet* of March 7th, 1874, and coming from so eminent a surgeon, it certainly merits our attention. He says:

"Of late years, whenever I have the slightest indication of the symptoms setting in, I have immediately given large doses of quinine; and in cases in which pyæmic symptoms have been well established, and which I have no doubt would have gone on to fatal termination, I have also given large doses of quinine, and in some cases the most satisfactory results have been obtained. I have seen over and over again, a patient with a dry, red, glazed, brown-furred tongue, with a rapid pulse and high temperature, having had a rigor a short time previously, with evidence of suppuration occurring in one part or another. I have, in such a case, given a drachm of quinine, and repeated it in three or four hours, and the next day have seen the patient in a totally different condition—the temperature down, the pulse lower, tongue clean and moist, and the patient expressing himself as well."

While the true nature of the toxic matter that gives rise to the blood-poisoning in Pyæmia, its origin and mode of opera-

tion are not fully known, and while it manifests itself more frequently in the surgical department of Hospital practice, but, seen also in private practice, it is interesting to observe that we may have it present without any traumatic cause, following some exhausting disease, notably typhus, and in some cases of typhoid fever; and we may also have it attendant on some of the most simple accidents in daily life—the running of a splinter into the toe, or the prick of a needle, as among the cases recorded by Mr. Prescott Hewitt, or such a simple thing as the cutting of a corn, the notes of which I have had the honor of presenting to the Society this evening.

ANEURISM OF THE INNOMINATE ARTERY CURED BY THE METHOD OF TUFNELL.*

BY HENRY H. HEAD, M.D.

To the Editor of the CANADA MEDICAL AND SURGICAL JOURNAL.

QUEBEC, June 24th, 1878.

SIR,—I herewith send you the report of a case of Aneurism of the Innominata, treated by Dr. Head of Dublin, on the plan suggested by Mr. Joliffe Tufnell, also of Dublin. This report was kindly forwarded to me by the latter gentleman, and as it is to my knowledge that several other cases of internal aneurism have been treated in an equally successful manner by the same method, I think it due to humanity and the spread of science, that the knowledge of Mr. Tuffnell's treatment, at once so successful, and yet so simple, should be extended as far as possible.

You will therefore oblige me much by giving the report an insertion in your valuable journal.

JAMES A. SEWELL, M.D.,
Dean, Medical Faculty Laval University.

The case which I wish to present to the Society is one of an aneurismal sac that had undergone cure by the process upon which so much stress has been laid by Mr. Tufnell — viz.,

* Read before the Dublin Pathological Society, January 20, 1878.

consolidation, by successive deposits of fibrin. The previous history of the case is short. In July last, the gentleman, who was leaving Ireland, came to thank me for my long attendance upon him, two years before, for a stomach affection. I had not seen him for these two years, and he told me that, during that time he had suffered from intense neuralgia in the back and shoulder, along the back of the neck, and in the back of the head. For this he had been treated in various ways, and he had used large hypodermic injections of morphia, which gave him a good deal of relief; but, after some time he was obliged to give them up, from the intense itchiness of skin which they caused. He then appeared to be well, and had not suffered much from neuralgia for some time. He was a Presbyterian chaplain in the army, and was going over to take charge of troops at Shorncliffe, in England. He mentioned to me that he had a little mark on his chest, beneath the right collar bone—a dusky spot, about the size of a five-shilling piece, as if he had got a bruise, and asked me to look at it. Upon examining it, I detected a distinct pulsation underneath, and came to the conclusion that he had a thoracic aneurism. But for the pulsation, however, it would have been impossible to detect an aneurism. There was no sign of pressure—no murmur, no difficulty of deglutition, no dilatation or irregularity of any vessel. There was no sign of interference with either recurrent nerve, and his voice was natural. The impulse of the aneurism was, if anything slightly in advance of the heart's impulse, as if the commencement of the contraction of the heart acted upon the aneurism before the apex of the heart struck the walls. This I have observed in two instances of aneurism of the aorta. There was no double impulse, and no murmur or bruit. He complained of little or no pain, except a burning sensation. I told him that I thought he was not fit for duty, and explained to him, to a certain extent, the nature of his illness—that an effort should be made to cure him; and I suggested a consultation with Mr. Tufnell, who concurred in my diagnosis that it was an aneurism, and most probably of the arteria innominata. As I considered that this gentleman was likely to be benefited by the

treatment which Mr. Tufnell has so ably advocated, we explained to him the nature of the treatment. He said that he would be glad to adopt it. He assumed the recumbent position the last week in July, and continued it until the middle of October. I had to leave town myself at the beginning of August, and Mr. Tufnell was then kind enough to take charge of the case. The patient took little or no medicine, and we did not give him any iodide of potassium; but when he was under my sole care, and occasionally when his heart beat a little fast, he got small doses of aconite, which reduced the frequency of the pulse a good deal. The principal treatment consisted simply of the horizontal posture, absolute rest, and a minimum of liquids, his food consisting as much as possible of solids, so as to diminish the quantity of blood, and at the same time keep up its healthy condition. He bore his confinement very well; but, in the beginning of October, he began to show signs of great restlessness, and I thought it better not to confine him any longer. He began to get up, and gradually to go out; but became sleepless, and got into a state of great mental depression, fearing that he would be put on half pay, and that he would be arrested for debts which really he did not owe. Mr. Tufnell and I now advised him to apply for additional leave of absence, thinking that the aneurism being now very much consolidated, a little more rest might enable him to go back to his duty. He applied for additional leave, and on the very day before the occurrence of the unfortunate act which terminated his life, went before a medical board; the leave of absence recommended was granted, but of this he could not be made aware, as the proceedings are private. He was now advised to go to the country for change of scene, and his friends were taking him there, when, at the Railway Station at Kingsbridge, he became suddenly excited, ran away from them, and threw himself over the wall, which is twenty-four feet in depth, into the Liffey. He was not killed by the fall, but the water in the river was shallow at the time, and he was immersed in the mud. From this he was extricated as speedily as possible, and taken to Dr. Steevens' Hospital, and after lying there for about two hours, he died. I did not see him myself, but was

informed that no impulse could be detected over the aorta, but he got a violent cough, which was characteristic of pressure. The Coroner directed a limited *post mortem* examination to be made, which gave the opportunity of ascertaining exactly the site of the aneurism and the result. While undergoing treatment Mr. Tufnell and I came to the conclusion that the aneurism had undergone a great deal of consolidation, although to what extent exactly we could not tell, because there was still a strong impulse. It, however, gave the impression of a solid tumour striking against the sternum, and we could not feel any signs of lateral dilatation whatever. The centre of the impulse was about the edge of the sternum, between the cartilages of the first and second ribs, extending about an inch and a half in each direction; and there was also marked dulness on percussion. The heart was slightly displaced and pushed downwards, the apex beating between the sixth and seventh ribs, a good deal to the left of the nipple and over a considerable surface; and there was also some amount of dulness on percussion over the region of the heart. We came to the conclusion that the heart was slightly enlarged. Upon inspection by *sectio cadeveris*, a *solid* tumour was found, occupying the entire mediastinum, and firmly attached to the under-surface of the sternum and the cartilages of the first and second ribs. A portion of the sac of the aneurism being adherent to the under-surface of the bones, it was supposed at first that the shock of falling twenty-four feet had burst the sac of the aneurism, but it was found that there had been no rupture whatever, nor were there any signs of extravasation of blood. The heart itself was covered with fat, and to some degree enlarged, flat, and flabby. On opening the left side of the heart the wall was found to be very thin and the cavity a good deal dilated; but the valves were perfect,—when we opened the aorta, we found it very much dilated and altered by atheroma in a marked degree, with dilatation almost amounting to true aneurism. Upon slitting up the aorta, we found that the original aneurism occupied almost the entire of the arteria innominata. At the back of it the vessels were pervious—namely, the subclavian and the carotid on the right.

Those on the left were also perfect; but the descending aorta was very atheromatous; and at a distance of between three or four inches, there was another small aneurism, the size of a walnut. This we could not diagnose during life; but it, too, was all but filled up with fibrin. The principal interest in the case lies in the manner in which the aneurism was cured. The layers of fibrin were very firm, and closely laminated, the layers of it being almost as thin as sheets of paper spread one over the other. It is a most interesting example of what may be done by the absolute rest and other items of treatment advocated by Mr. Tufnell — in fact, this aneurism was cured. This case ought almost to have been Mr. Tufnell's, for he had more to say to the treatment; but as the patient was mine at the first and the last, I have laid the case before the society. The age of the patient was fifty-six.

Dr. Bookey said that the lungs were congested, and had a good deal of frothy fluid in them, such as is met with in the lungs of a person who has been drowned. The patient, who was a heavy man, sixteen stone weight, had fallen twenty-four feet, and was found lying on his face. He died within two hours after he was received into the hospital, and breathed, it was stated, all the time he was there.

Hospital Reports.

Medical and Surgical Cases Occurring in the Practice of the Montreal General Hospital.

Gunshot Injury of Femoral Artery—Ligature. Under the care of Dr. Wilkins.

(From Notes taken by Dr. Burland, Assistant House Surgeon.)

J. McC., æt. 22, was admitted into the Montreal General Hospital 9th August, 1877, under the care of Dr. Wilkins, suffering from the effects of a bullet wound in the right thigh. The accident occurred in this way: Patient had a revolver at full cock in his hand, which he was about to place in his coat pocket, but before doing so forgot to let down the cock, and the trigger caught in the side of the pocket, causing the charge to

explode, the ball entering the right thigh about 2½ inches below the anterior superior spinous process, taking a course downwards and inwards, becoming superficial in the inner aspect of the thigh about five inches below the crutch, where it was easily extracted by a small incision.

Patient is one of a family of six, all of whom are healthy except one sister, who is subject to rheumatism. Father and mother both living. Has followed the trade of tinsmith for several years; has never been intemperate, and has enjoyed good health. Height 5 ft. 7 in.; weight about 133 lbs. On examining heart, a systolic basic murmur can be heard. The copious hæmorrhage which took place immediately after the accident had stopped before his arrival in hospital, and as there was almost no bleeding then, nothing further was done than to apply ice over the track of the wound. The case seemed to do well until a couple of days after (11th Aug.), when swelling was perceived over the femoral artery as well as to its inner side. Upon palpation pulsation was distinctly felt, accompanied by a thrill. Auscultation revealed a moderately loud bruit. No pulsation could be felt in popliteal artery, but there was pulsation in a small artery lying somewhat posterior to the usual situation of the posterior tibial. The leg retained its normal temperature.

These conditions revealed what we were before doubtful of—that is, that an artery was injured and that a traumatic aneurism was forming.

The next two days (Aug. 12 and 13) the swelling continued to increase and the temperature commenced to rise, reaching on the evening of August 13, 102°.2. The injured leg over affected part was three inches more in circumference than the left leg.

As it was decided (Aug. 14) to cut down upon the injured vessel and tie, the patient was etherized, and after completely emptying the leg of blood by elevating it and applying a roller, Esmarch's elastic ligature was firmly applied to the highest point of the leg, part of the ligature encircling the pelvis. Dr. Wilkins now made a free incision, about four inches in length

over the course of the femoral artery, the centre of the incision being a little above the lower angle of Scarpa's triangle, and corresponding with the point of intersection of two lines, one drawn over the course of the femoral artery, and the other over the track of the bullet. The sartorius having been pushed aside and some further dissections made, the sheath of the vessel was brought into view, when it was discovered that the bullet had perforated the femoral artery, about 1½ inches below the origin of the profunda. The artery was not completely severed; about three-quarters of its circumference was carried away, leaving a rent about two-thirds of an inch long; the distal end was first tied, a second ligature was also applied to the cardiac end as close as possible to the rent, and the vessel cut between the two ligatures, this last fixed ligature was for the purpose of preventing retraction and to manipulate this end of the artery, as it required further dissection to enable it to be firmly tied. A large quantity of coagula and decolorized fibrin were turned out of the aneurismal cavity, which was to the inner side of the artery extending upwards to Poupart's ligament. The distal cut end of the artery was now sufficiently bared and firmly tied with silk, and the cavity formed by the aneurism washed out with carbolic lotion. The edges of the wound were brought together by means of wire suture and a free opening left at the lower end of the wound, a drainage tube inserted and carbolic oil dressing applied. Patient was immediately put under the influence of opium; watch was constantly kept up for a few days by his bedside to guard against hæmorrhage.

Temperature continued to rise for a couple of days after the operation, when (Aug. 16) it reached 105°.2. For the first time he now (Aug. 16) complained of pain in his right foot; on the following day this pain was limited to that portion of the foot immediately behind and below the right internal malleolus, over which, on the 17th, a bulla commenced to form. On the 19th this bulla was filled with a dark fluid, and the lymphatics leading from it were inflamed. It continued to increase in size until the 21st August, when it burst, bringing into view a large slough beneath, portions of which separated on the 24th, leav-

ing healthy granulations beneath; other portions of the slough separated on the 27th August, but the last of the slough did not come away until two days subsequently (August 29).

On the 26th August, seventeen days after the accident, he complained for the first time of his toes being tender; three days later (29th) there was considerable swelling and fluctuation over the metatarsal bone of the great toe. This was opened, when a large quantity of pus escaped, and the metatarso phalangeal joint was found to be involved. This joint continued discharging more or less every day until the 10th Oct., when Dr. Wilkins decided to resect the joint, but after laying bare the heads of the bones, the metatarsal bone was found to be diseased so very far up it was necessary to amputate the toe close to the tarso-metatarsal articulation, after which the patient did well without a single bad symptom.

During the course of his confinement to bed two sloughs were produced by pressure on the inside of the foot, the integument over the outer malleolus giving way August 26, and that over the outer edge of the base of the fifth metatarsal bone on the 15th of September.

On the second day after the operation (Aug. 16) symptoms of septicæmia made their appearance; profuse perspiration with high temperature, vomiting and diarrhœa. His temperature, which commenced to rise two days before the operation, reached 105°.2 on the second day after, and kept moderately high (103° to 104°) for about six weeks subsequently, occasionally falling three degrees, sometimes a little more, after the administration of a twenty-grain dose of quinine. Stimulants were freely administered; for one period of forty-eight hours he had continuously one ounce of brandy every two hours. Besides aiding the quinine in bringing down the temperature, it materially lessened the frequency of the pulse, which had reached 148° on August 17.

The destruction of the great toe joint so long after the accident I consider to have been due entirely to embolism: the femoral was tied so close to the origin of the profunda (about an inch from origin) that the cardiac end of the thrombus is

likely to have projected, in the form of a cone, a little beyond the opening of the profunda, and thus permitted one or more small portions of the plug being detached from it and carried with the current until arrested in the small blood vessels of this joint where suppurative processes were set up.

Case of Dislocation of the Femur into the Foramen Ovale. Under care of Dr. Reddy. Reported by JAMES BELL, M.D., Assistant House Surgeon, M. G. Hospital.

W. S., a medium-sized, well-built and healthy Englishman, 40 years of age, was admitted to Dr. Reddy's wards on the 23rd of June last, having received an injury to his left hip the evening before. He was wrestling with a friend and threw him, and the latter while down grappled him by the legs and brought him to the ground, at the same time rolling over him. He felt something give way in the fall, and he had to be assisted to his feet. On admission he was suffering great pain, especially over the adductor muscles of the thigh near Poupart's ligament. The body was bent forward in attempting to walk, and in the recumbent position the thigh was semiflexed on the abdomen. The whole limb was abducted and the foot everted. There was also considerable apparent lengthening of the limb. The buttock was much flattened, and the gluteal fold absent. The trochanter could be felt at the bottom of a deep depression over the outer side of the thigh. There was preternatural fulness of the anterior and inner portions of the upper third of the thigh, and in this situation even slight pressure was very painful. *Bryant's Line* measured 3¼ inches on the left side and 2½ on the right, and the left leg was half an inch longer than the right. The patient was chloroformed and Drs. Reddy and Fenwick proceeded to reduce the dislocation by the rotatory method. The first attempt threw the bone into the ischicatic notch. It was easily thrown back again into the foramen ovale, and a second attempt was made with a similar result. On the third attempt it slipped into its place without difficulty. The patient's legs were bound together and ice applied to the joint. There was considerable swelling for a few days and his temperature rose a

little. It ranged for three or four days between 99° F. and 101° and then became normal. The ice-bags were removed in three or four days and the bandages at the end of a week. The patient was kept in bed for two weeks. He was finally discharged on the 13th of July, feeling quite well and able to walk with the aid of a stick.

Correspondence.

LONDON, July 11, 1878.

To the Editor of the CANADA MEDICAL AND SURGICAL JOURNAL:

DEAR SIR.—At Edinburgh, from the great and long standing reputation of its University, there is always found much to repay any medical visitor. Yet at the present time one cannot but be struck with the absence of any who stand as Syme, Simpson and others stood, head and shoulders above all the rest. London men taunt their northern friends by telling them that every good man there naturally comes to London. That is certainly true; but the retort which has been thrown back has equal justice, viz., that when a London school is in want of a teacher it is very often to Edinburgh that they look to find the man.

Of course one cannot speak of Edinburgh without being led to speak of Listerism. My impression so far is that the last 12 months does not appear to have made any change in the position of the germ-doctrine. I don't think the full antiseptic teaching and treatment can be said to be gaining ground, and it will apparently be a long time before this matter can be definitely settled. The opponents of Listerism are not confined to such men as Spence, who have grown grey in the practice of now-called old-fashioned surgery, and who obstinately refuse for a moment to entertain the idea of such radical changes in procedure, but number amongst them young men, active, keen and earnest, who have had ample opportunities of studying both, and who will asseverate and maintain and shew cases to prove that as good results can be obtained one way as the other, provided always it be in the same hands and equally carefully

and skilfully managed. Even in Edinburgh itself there are but a few who may be called enthusiastic and thorough antiseptic men. Of these probably Chiene is the chief. Many others, such as Mr. Jas. Bell, for instance, use a thoroughly antiseptic treatment in certain cases, but object to its employment in many others of a similar class.

The new Royal Infirmary at Edinburgh is approaching completion. It is an immense structure, built of stone, on the most approved modern pavilion-plan, and covering several acres of ground. It will surely be much appreciated by the members of the schools and by the public. No stranger can help being struck with the antiquated and wretched condition of the present building, seeing that it is the teaching field of the largest schools in Great Britain.

Nerve-stretching in sciatica continues to be practiced there to a limited extent. Some of the results from it are brilliant but in other cases it has quite failed, and as yet there is no positive means of distinguishing between those which are amenable to this treatment and those which are not. I saw one case there supposed to have been cured but in whom it had speedily returned.

There is a considerable number of Canadian graduates and students here at present. St. Thomas' Hospital is their favorite resort. Dr. Murchison still continues his summer clinics twice a week. There are always to be found in his words an admirable selection of severe and important medical cases. From the severity of the cases admitted also autopsies are frequent. Here probably more than at any other school are the students of the class diligently and systematically instructed by the bedside and made to take a continually active part in the diagnosis of all new cases. Owing of course to Dr. Murchison's great reputation in connection with diseases of the liver and allied organs, great numbers of rare and interesting varieties of abdominal complaints are constantly to be seen. For instance, within two days of each other, I saw two very parallel cases of encephaloid of the testicle combined with secondary disease in the post-peritoneal glands, and one of these in a monorchid, where the disease first attacked the undescended gland.

The recent conversazione of the Royal College of Physicians, which is always one of the features of the season, was perhaps remarkable for the number of new scientific instruments which will probably soon in various ways come into use in medical practice, viz., improved sphygmographs, the microphone, and the phonograph. You are aware that Sir Henry Thompson has already made some noise about the employment of the microphone for the detection of stone. It is complained that the sound of the "click" reached the *Times* office as soon as it did the ears of the bystanders! As an example of the way in which the phonograph may possibly be useful, I might mention the suggestion which I heard made by a well-known alienist the other day to cause a patient affected with general paralysis or other forms of nervous speech derangement, to register his peculiarities of accent by this instrument, and thus by setting the clock-work in motion, every one of the modifications, &c., would be most accurately reproduced at any time, and could thus be used for purposes of illustration or comparison.

Lymphadenoma is a disease attracting a good deal of attention. Cases here appear to be tolerably numerous, but there certainly appears to be much wanting a good description of the points of differential diagnosis between this disease and strumous enlargement of the cervical glands. There is a case however, of an undoubted character under Dr. Bristowe in St. Thomas' hospital, where the glandular enlargements are very general; there is enormous enlargement of both sides of the neck pressing deeply against the pharynx and upper part of the larynx. Tracheotomy has been performed for a month with great comfort to the patient. He wears an elastic rubber trachea-tube, which is only removed once a week, and seems to answer extremely well.

I had the pleasure of hearing Professor Burden Sanderson's Harveian oration. It was made much more interesting than one might have expected. He left the ordinary ground of following the course of Harvey, as an investigator, and tried to impress upon his audience, especially addressing the younger portion, the advisability of devoting themselves earnestly and continuously without hope of any immediate reward, to the investiga-

tion of the medical problems of the day, and to the observation of nature with strict records of facts obtained. He particularly insisted upon the necessity of such men travelling. He believed it to be too much the custom at present to be confined to the London schools, but he considered it just as requisite in the present day to spend some years in foreign countries for all men devoting themselves to original investigations, as it was for Harvey to have spent five years at Padua after he had completed a full curriculum in London and obtained the English degrees.

Sayre's plaster of paris bandages have become so popular since his demonstrations in this country that anything connected with that subject can hardly fail to interest your readers. The surgeons of the National Orthopædie Hospital have been experimenting with a new substance which they are hopeful will supersede the heavy plaster. The composition is a patent, and the exact composition not known. Sheets of this material, which is a kind of felt impregnated with certain gums and resins, are made into a cylindrical form. Measurements of the patient are made and from this a block like a shoemaker's last is fitted at to approximate to the patient's size and outline. A portion of the sheet is blocked on this and sent to the operator. When the patient is slung, the felt bodice is simply heated over a gas-stove, when it becomes perfectly pliable and can be smoothly adapted to the body. It sets quite hard in two or three minutes. It is then laced up in front. The advantages of course are lightness, cleanliness, and the fact that it can be removed as often as desired without any ill-effect whatever. I saw two cases treated with it and was pleased with the working of the material. The objections to it are too obvious to require mentioning.

You will be pleased to hear that the small volume of Pathological Reports lately issued from the Montreal General Hospital has been extremely well received by those best competent to judge of its scientific merits. I have heard it in some quarters very highly complimented. Having now attended several of the best autopsy-rooms in London, I have not yet found one in which the post-mortem examinations are conducted as well or as systematically as they are in our own General Hospital.

G. R.

Reviews and Notices of Books.

A Manual of Operative Surgery. By LEWIS A. STIMSON, B.A., (Yale) M.D., Surgeon to the Presbyterian Hospital, Professor of Pathological Anatomy in the Medical Faculty of the University of New York. With 332 illustrations, 8vo., pp. 477. Philadelphia: Henry C. Lea, 1878. Montreal: Dawson Brothers, St. James Street.

In the preparation of this manual the author has endeavoured to render it complete as regards the details of the descriptions of operations, to meet the wants of the surgeon and also the student of medicine and surgery, taking care however not to over-burthen his work with minuteness of detail in non-essentials. Still, where he deemed it necessary, he has not hesitated to describe very fully the method of performance of operations and the anatomical relation of parts. He divides the work into seven parts. In part I. we have considered the accessories of an operation, such as anæsthetics, means of arresting hæmorrhage, treatment of surgical wounds, the suture and bandages. Part II. is devoted to the ligature of arteries. Part III. to amputations. Part IV. to excision of joints and bones. In part V. is considered neurotomy and tenotomy. Part VI. treats of plastic operations about the face; and in part VII. we have considered special operations. Fully half of the book is devoted to this part, and we have the subject discussed in nine chapters.

In the first chapter is given operations on the eye and its appendages. Then we have operations on the ear and its appendages; on the mouth and pharynx; on the neck; on the thorax; on the abdominal wall, stomach and intestines; on the genito-urinary organs of the male; the same of the female; and finally a description of miscellaneous operations. These latter consist of splenotomy, subcutaneous osteotomy, erectile tumours, birth-mark, web-fingers, cicatricial flexion of phalanges and ingrowing toe nails. The type is clear and well impressed; the illustrations are all that can be desired. Every department is fully illustrated by engravings, which will be found of incalcula-

ble use to the surgeon. The description of each operation is concise and clear. We commend this work to our readers; in many respects it is superior to Joseph Bell's little work on the same subject, and which for years past has been the familiar guide to the student in following a course of operative surgery.

Fownes' Manual of Chemistry, Theoretical and Practical. Revised and corrected. By HENRY WATTS, B.A., F.R.S. Editor of the Journal of the Chemical Society. A new American, from the twelfth English Edition. Edited by ROBERT BRYDGES, M.D., &c., with 177 illustrations; 8vo., pp. 1027. Philadelphia: Henry C. Lea, 1878. Montreal: Dawson Brothers, St. James Street.

Fownes' Elements of Chemistry has been a favourite text book for many years. The work is designed to give the student a general outline of the principles of chemistry and serve as an introduction to the larger and more voluminous works on this science, and furthermore to fit him for the perusal of original memoirs, which, together with practical work in the laboratory, can alone lead to a real acquaintance with the spirit of research, and the wonderful resources of chemical science. The first three editions were brought out by the author, or nearly so, as the third edition was nearly completed before his death in 1849. At the commencement of the following year the third edition appeared edited by the late Dr. Bence Jones. The six following editions came out under the conjoint editorship of Dr. Bence Jones and Dr. Hofmann. The tenth edition in 1868, was published by Dr. Bence Jones, and the present edition by Mr. Henry Watts. These gentlemen found it necessary to make considerable alterations and additions in almost every part of the work in consequence of the numerous changes which had taken place in chemical knowledge. The chapter on General Principles of Chemical Philosophy was re-written. Considerable additions to the description of the metals were made and the greater part of Organic Chemistry was re-written, and in the last English edition a vast amount of new matter was added, so

that it was deemed desirable to divide the work into two volumes, the first including chemical physics and inorganic chemistry, and the second being devoted to organic chemistry. In previous editions there is to be found a portion devoted to physiological chemistry, including a description of the tissues and fluids of the animal body, and also a description of the functions of nutrition and respiration. In the present edition however this part has been omitted, in consequence of this department of chemistry having become so extensive as to demand consideration in a separate work.

In this the American edition, the publishers announce that in reprinting the work "by the use of a small but exceedingly clear type, it has been compressed into one volume." This however has not been done at the expense of any portion of the work, and the American editor has confined any additions he may have found advisable to make to the narrowest compass.

We feel convinced that it is alone necessary to announce this work to ensure a large demand, as it is one of the best manuals issued from the press, and has always been a favourite text book.

Nervous Diseases, their Description and Treatment. — By ALLAN MCLANE HAMILTON, M.D., Fellow of the New York Academy of Medicine, Attending Physician at the Epileptic and Paralytic Hospital, Blackwell's Island, New York, with fifty-three illustrations; 8vo., pp. 512. Philadelphia: Henry C. Lea, 1878. Montreal: Dawson Brothers, St. James Street.

The author informs us in his preface that it has been his object to produce a concise and practical book, and he also declares that he will be amply rewarded for this self-imposed task should he at any time be made aware that the diagnosis and treatment of nervous diseases has been simplified through his means. The subject of insanity has not been gone into, as he believes that it demands a more careful and extended notice than could be accorded to it in a work of this size; cerebro

spinal meningitis is however discussed, although many authorities regard it as not belonging, strictly speaking, to nervous disorders. Von Ziemmsen in his cyclopædia classifies it among the acute infectious diseases, and many other authors place it among the fevers. It can, however, in a work of this nature, be very properly considered. The work commences by an introduction in which will be found in the first part hints as to the method of examination and study of cases, and also the proper method of conducting an autopsy, and microscopical examinations.

In the second part is mentioned instruments used as aids to the diagnosis and treatment of nervous diseases; such as the thermometer, the æsthesiometer, the dynamometer, and the ophthalmoscope. These are all essential aids to the diagnosis of these affections; and in the treatment we have electrical apparatus, the hypodermic syringe, ice bags of various designs, and cauteries. The rest of the book is divided into eighteen chapters; the opening chapter being devoted to disease of the cerebral meninges. Chapters ii. to vi. inclusive are given to the discussion of diseases of the cerebrum and cerebellum. In chapter vii. diseases of the spinal meninges are considered, then the ensuing four chapters are devoted to diseases of the spinal cord. There is a chapter on bulbar paralysis, then follow two chapters on what the author classifies under the heading of cerebro spinal diseases, these consisting of cerebro spinal menengitis, cerebro spinal sclerosis, alcoholism, hydrophobia, hysteria, hystero-epilepsy, catalepsy, chorea paralysis agitans and exophthalmic goitre. The remaining four chapters are on diseases of the peripheral nerves.

At the end of the volume there are formulæ for various mixtures, pills, powders, hypodermic injections, inhalations, lotions and unguents. This book contains a large amount of material which is not to be found elsewhere; the style is very clear and readable, and the teaching sound. No physician ought to be without a copy of this work. The author has had ample opportunity in connection with the epileptic hospital on Blackwell's Island, as also with the out-door department of the New York

Hospital, and has apparently fully utilised the material at his disposal. The work appears to be a very important and useful addition to the literature of this subject, which was prior to the appearance of this volume rather meagre.

Transactions of the American Gynæcological Society. Vol. 2. For the year 1877. 8vo., pp. 672, with index of Gynæcological and Obstetrical Literature of all countries, from July 1st 1876, to January 1st 1877, pp. 25. Boston: Houghton, Osgood & Co., Cambridge. The Riverside Press, 1878.

This is the second volume of Transactions of the American Gynæcological Society, and consists of a series of papers submitted to the Society at its second Annual Meeting, held in May, 1877. It has taken a little over a year to bring out this volume—perhaps a little tardy, but what has been done is well done. The volume is got up in the same style as its predecessor, in good readable type, on fully toned paper, and illustrated throughout with chromo-lithographs and heliotypes of excellent finish. From an introductory note by Dr. Chadwick, the secretary of the Society, we learn that it is the intention to publish in each succeeding volume, an index for the year to the Gynæcological and Obstetric Literature of all Countries. This volume contains such an index, extending from the 1st July 1876, to the 1st January 1877. It has been prepared with the coöperation of Dr. J. S. Billings, of the National Medical Library at Washington; this will add greatly to the value of the work, and if kept up from year to year will render the work indispensable in the library of the scientific student. After lists of honorary fellows and ordinary fellows, and minutes of the proceedings of the second annual meeting, the real interest in the volume opens with the annual address on medical Gynæcology by the president, Dr. Fordyce Barker. In a few introductory remarks, he points to the advisability of the careful distribution of foreign honorary fellowships, observing that the society should adopt "the wise policy of selecting a very small number from those

only who have done so much for the literature and science of our branch of the profession, as to make their election an expression of the highest respect which this society can evince"; and as regards honorary fellowships from amongst his own countrymen he suggests the expediency of selection only from amongst those who "have won the honour by good service in the society." Certainly if these suggestions are fully carried out they will do much to elevate the character and standing of the society, for, as he truly observes, "honours cheapened by being made common, are but lightly esteemed."

This excellent address is followed by one from the pen of Dr. James R. Chadwick, of Boston, on the functions of the anal sphincters, so called, and the art of defecation; in this we have described the physiological action of the sphincters, the author recognising after Hyrtl the sphincter ani tertius. This paper is very interesting and leads to practical deductions, of which the following are a summary: That in the introduction of a bougie into the rectum it is an error to imagine that a straight bougie ought not to meet with any natural obstruction. 2nd. "As the anterior half of the inferior detrusor is just below the level of the bottom of Douglas's pouch, it seems probable that the point at which inter-peritoneal abscesses are most likely to perforate the rectum is just above this constricting fold," and 3rd. "As the superior detrusor is shown to be forced down into the canal during defecation by the action of the abdominal muscles, the suggestion presents itself that this part of the rectum is the one that first emerges in cases of prolapsus of the rectum." This article is illustrated by two heliotype plates.

Dr. John Byrne, of Brooklyn, N. Y., gives a practical paper on amputation and excision of the cervix uteri, their indications and methods. The term excision he restricts to the removal of comparatively small portions of the cervix in contradistinction to the term amputation, by which he would imply the entire removal of an hypertrophied or diseased cervix. In speaking of the means used for the amputation or excision of the cervix, the author shows a decided preference to the use of the galvanic cautery; seven cases are reported with encouraging success;

an interesting discussion on this paper follows, and we have the opinion of Dr. Scott, of the Women's Hospital, San Francisco, Dr. Byford, of Chicago, Dr. Goodell, of Philadelphia, and Dr. Noeggerath, of New York.

We next have a report on the corpus luteum, from the pen of Dr. John C. Dalton, of New York. It appears that at the meeting of the society, held in 1876, Dr. Dalton was invited to prepare a report on this subject, and through the coöperation of a number of medical friends he obtained in good condition thirty-two pairs of ovaries, at various periods after menstruation, and after delivery the first ten cases reported, illustrated the growth and retrogression of the corpus luteum as connected with the menstrual period. Then we have the record of six cases in which the condition of the ovaries is described after menstruation had been suspended for several months or years. These cases, the author informs us, serve to illustrate the negative history of the corpus luteum in its relations with menstruation. The ensuing five cases illustrate certain irregularities and marked deviations in the corpus luteum of menstruation, and the remaining cases illustrate the appearance of the corpus luteum of pregnancy and after delivery; this paper is illustrated with twelve coloured lithographs.

Dr. G. H. Bixby, of Boston, gives a translation of a paper by Dr. Otto Spiegelberg, on the pathology and treatment of puerperal eclampsia. This is followed by a paper on dilatation of the cervix uteri for the arrest of hæmorrhage, by Dr. G. H. Lyman, of Boston. There are three short papers, one by Dr. Skene, on the principles of gynœcological surgery applied in obstetric operations, another, researches on the mucous membrane of the uterus, by Dr. Engelmann, and a third on the necessity of caution in the use of chloroform during labour, by Dr. W. T. Lusk. In this paper the author assigns five reasons why chloroform is objectionable. 1st. If carried to complete loss of consciousness, it sometimes weakens uterine action, or may suspend it altogether. This may possibly follow, but we should think it exceptional. Uterine action may, as a first effect, be weakened, but we cannot call to mind any case where

it has been totally suspended during the parturient act. In the third proposition the author denies that patients in labour enjoy any absolute immunity from the pernicious effects of chloroform. Fourthly, the author holds that the anæsthetic ought not to be given in the third stage, as he remarks, the relative safety of chloroform in parturition ceases with the birth of the child. In this we fully agree. The chief objection to our mind to the use of chloroform, is a decided tendency to post partum hæmorrhage as following its employment. It appears to influence injuriously the contractile power or tone of the muscle of the uterus, and in our experience post partum hæmorrhage is very apt to follow its use.

This fact was long since pointed out, and in all cases in which chloroform has been freely administered, the accoucheur should always use more than ordinary precautions against this result which is so apt to follow, as undoubtedly the anæsthetic tends to produce uterine relaxation.

The next paper is by Dr. Van de Warker, on the present status of the intra uterine stem in the treatment of flexions of the uterus. This paper is fully discussed, the discussion being participated in by all the leading gynœcologists present. A case of vaginal ovariotomy is reported by Dr. Goodell. This is followed by a paper from Dr. Robert Battey, entitled, "Is there a proper field for Battey's operation?" As our readers are aware, Dr. Battey proposes the removal of the ovaries while still functionally active, as a means of relieving certain conditions, and he offers the following propositions: He would practice removal of the ovaries—1st. "In those cases of absence of the uterus, in which life is endangered or health destroyed by reason of the deficiency." 2nd. "In cases when the uterine cavity or vaginal canal has been obliterated and cannot be restored by surgical means. If grave symptoms are present, the removal of the ovaries becomes a last and only resort, and may be hopefully invoked in the case." 3rd. "In cases of insanity or confirmed epilepsy, dependent on uterine or ovarian disease." 4th. "In cases of long protracted physical and mental suffering, dependent on monthly nervous and vascular

perturbations which have resisted all other means of cure." We cannot believe that this operation will ever become a recognised surgical procedure. In the discussion which follows this paper, the general feeling appears adverse to the adoption of this as a recognised and justifiable operation.

Dr. Paul F. Mundé gives an excellent paper on "the value of electrolysis in the treatment of ovarian tumours." The conclusions he arrives at are as follows: 1. Unquestionably a number of cases of ovarian tumours reported on reliable authority have been completely cured or permanently improved by electrolysis. 2. It is equally unquestionable that in a number of cases the electrolysis was followed by dangerous and even fatal results. 3. Further, six cases out of fifty-one received neither benefit nor injury from the treatment, and four were only temporarily improved. 4. The lack of accurate reports of the anatomical character of the cyst in the cases collected, prevents any definite conclusion as to whether monocysts or polycysts are more or less amenable to electrolysis, or unfavourably affected by it. 5. How the cures were effected is a matter still open to investigation. 6. Notwithstanding these undoubted cures the percentage of successes (55 per cent.) compares unfavourably with that of ovariotomy. Spencer Wells had 78 per cent., and in 1876 as high as 91 per cent. of recoveries. 7. Judging partly from these statistics, and partly from general considerations, it would seem that electrolysis can in no wise supplant ovariotomy, and that to try electrical experiments with patients whose tumours and constitution are in every way prepared for the radical operation, looks very like trifling with their lives.

Notwithstanding these conclusions, based on a most careful analysis of all the cases so far published, we cannot altogether agree with Dr. Mundé, as it must be admitted that the number of cases in which the electrolytic treatment has been practised do not bear comparison with those in which ovariotomy has been followed. Electrolysis in ovarian cysts is yet in the very outset of its career, and we cannot but believe that it has a bright future, and that in the hands of scientific and honest men it will yet be found a powerful means for good.

There is an excellent paper by Dr. Emmet, of New York, on congenital absence and accidental atresia of the vagina. Dr. Giddings reports a case of sarcoma of the kidney in a negro child; this is illustrated. Dr. Parvin gives a supplementary report of a case of xenomenia, which was published in the first volume of the transactions; this is accompanied with two heliotypes. Dr. Engelmann writes a paper on the hystero-neurosis, with especial reference to the menstrual hystero-neurosis of the stomach. The volume proper closes with an obituary sketch, by Dr. Lyman, of the late Charles Edward Buckingham; this is accompanied with an excellent likeness of Dr. Buckingham, who was one of the original fellows of the society. There is also published a number of supplementary papers, presented to the council by the candidates elected to fellowship of the American Gynœcological Society at its second annual meeting in 1877. These consist of cases illustrating important points connected with the operation of ovariotomy, by Dr. Kimball, of Lowell, Mass. The radical treatment of dysmenorhœa and sterility by Dr. Elwood Wilson, of Philadelphia. Dr. Wardale West's views of rotation, by Dr. John P. Reynolds, of Boston. Vascular tumours of the female urethra, by Dr. A. Reeves Jackson, of Chicago. The simple varieties of perineal laceration, by Dr. Thaddeus A. Reamy, of Cincinnati. On Lying-in institutions, especially those in New York, by Dr. H. J. Garrigues, of Brooklyn, N.Y. The menstrual cycle, by Dr. John Goodman, of Louisville, and also an appendix to Dr. John Byrne's paper on amputations and excisions of the cervix uteri.

We have thus far, we hope without prolixity, endeavoured to give our readers some conception of the contents of this excellent volume; it is a credit to the society from which it emanates, and we believe it will be hailed with satisfaction by the profession generally.

Extracts from British and Foreign Journals.

Unless otherwise stated the translations are made specially for this Journal.

Lithotomy.—A case of Lithotomy, in which an enlarged middle lobe of the prostate gland was accidentally removed. By CHARLES WILLIAMS, F.R.C.S., Assistant Surgeon to the Norfolk and Norwich Hospital.—The specimen which I have the pleasure to exhibit to you represents an enlarged middle lobe of the prostate gland, accidentally removed from a gentleman on whom I performed the operation of lithotomy.

The patient was a tall thin man, aged 72, living about ten miles from Norwich. He had had symptoms of stone in the bladder for upwards of twelve months. A few months before I visited him, he had passed on one or two occasions, a large quantity of blood in his urine. Of late he had suffered much from the presence of the stone. He had been greatly disturbed during the night and had become low-spirited. His urine was found to be quite healthy and free from albumen. His feet were in no wise œdematous; and he could eat freely. There was a loud systolic *bruit* heard over an extended area of the chest giving rise to no inconvenience. Five years previously he fractured the neck of the right thigh-bone; ankylosis of the hip-joint resulted from the injury, and he now walks with a perfectly straight and stiff, and shortened, limb.

On July 6th, with the assistance of Messrs. Morton, surgeons, of Aylsham (under whose care the patient had been), I performed the usual lateral operation, and removed a single stone, of an oval flattened shape, weighing five drachms, of uric acid formation. An enlarged middle lobe of the prostate became engaged between the blades of the lithotomy-forceps, anterior to the hinge, and was unconsciously torn off and came away with the stone. There was free arterial hæmorrhage from a deeply seated vessel, which was without much difficulty seen and secured by ligature. A tube was placed in the wound.

On visiting the patient next day I found him easy and comfortable. There had been no sickness; he had slept fairly well;

pulse 64. The wound looked well; the urine was clear, and dropping freely from the tube and abundant in quantity. On the ninth day, he passed the whole of his urine through the penis, and the wound was healing rapidly. Three weeks later, I found him in excellent health, and the wound perfectly healed. He seldom found it necessary to micturate more than once during the night.

REMARKS.—This case presents some points of much interest.

1. The presence of a loud systolic *bruit* is not a pleasant sign in connection with the administration of chloroform, of which my patient inhaled from four to five drachms, and from which he suffered not the slightest inconvenience, either during the operation or subsequently.

2. The fracture of the neck of the right os femoris had resulted in ankylosis of the joint. The limb was immovably fixed in the straight position; therefore it could not be tied up in ordinary lithotomy fashion, but was held by an assistant in a straight direction over my left shoulder. This rendered the performance of the operation somewhat less easy than usual. The parts forming the perinæum were lax instead of being tense, and in order not to wound the rectum, which was large and flaccid, I passed my left forefinger into the bowel, and retained it until the point of the knife was lodged in the groove of the staff; and, by directing the edge of the knife very obliquely outwards, the rectum escaped injury—an event which, in all probability, would have occurred had not these precautions been adopted. If such an accident had happened, taking into account the age of the patient, I fear the termination of the case would have been unfavorable.

3. The removal of a large portion of the middle lobe of the prostate, though quite accidental, was attendant with a happy result. The man was relieved of a trouble which, sooner or later, would have been a source of grievous annoyance to him.

I witnessed the same accident in a case operated on by Mr. Cadge. In the forceps, between the stone and the blades, there came away three masses, which were apparently fibrous outgrowths of the prostate, and which weighed one drachm two

scruples. In two months the wound had healed, and the patient was strong and well. Mr. Cadge remarks: "It has happened to me twice before to remove small fibrous tumours of the prostate gland during the operation of lithotomy, and apparently without harm to the patient." (*Transactions of the London Pathological Society*, vol. xiii, 1862.) And he gives the experience of an expert modern lithotomist on this subject, who says: "It has occurred to me, eight or ten times, to bring away portions of the prostate and without noticeable injury to the patient. In more than one instance, it was the prominent front lobe that got between the handles, anterior to the hinge, and was torn off entire; and although I have never known unpleasant results to the patient, and that sometimes he has been benefited in after-life, by having got rid of an useless impediment to a natural function, I would not willingly that such an occurrence should happen, and I try to avoid it by turning the blade of the forceps to the lower angle of the wound as I leave the bladder; but when it does occur, I lay no account by it."—*British Med. Journal.*

Congenital Absence of One Kidney.—In the current number of Virchow's *Archiv*, Dr. Beumer has collected from various sources forty-eight cases of this interesting malformation. In forty-four cases it was entirely absent, and in the other four rudimentary. It was as often absent on one side as on the other. It was of more frequent occurrence in the male than the female. In most cases in which the kidney was absent the supra-renal body was present; in two cases it was enlarged, in five cases it was absent. In thirteen cases an arrest of development of the sexual organs was observed.

The remaining kidney was in all cases enlarged and increased in size and weight, and a corresponding development of the vessels and ureter.

This is a fresh and striking proof of the completeness with which the one kidney can carry on the functions of two without suffering degeneration in consequence of the increased work.—*Medical Journal, N. Y.*

The Infantile Diarrhœa of Summer.—At a recent meeting of the New York Academy of Medicine (*Med. Record*, May 25, 1878), Dr. J. Lewis Smith contributed a very interesting paper on this subject. As regards its treatment, he said he believed that there were but very few remedies from which it was necessary to select, and for his own part he scarcely ever employed more than two, viz., opium and bismuth, before the hydrocephaloid stage was reached, and these he considered better than all others. The administration of the large doses of bismuth now employed is of but recent origin, but has been followed by the best results. In ordinary cases it should be given in doses of ten or twelve grains, and it may be advantageously combined with the compound powder of chalk with opium (which contains one grain of opium in forty), or else with ordinary Dover's powder. For general use, however, it is perhaps better to give the bismuth in suspension, and the following prescription will be found a very admirable one:—

℞. Tinct. opii deodoratæ . . . . . gtt. xvj.
Bismuth. subnitratis . . . . . ʒij.
Syrupi . . . . . f ʒss.
Aquæ . . . . . f ʒiss.
M.

Dose, a teaspoonful for a child of one year.

Dr. Smith said that he had been much more successful since he had employed opium and bismuth in this way than before, when he would often try a long list of remedies in succession, and not find good results from any. Such a combination as the above is retained on the stomach, and has the effect of both an antiseptic and an astringent. No preparatory treatment is necessary, unless it is found that some irritating article of food has been taken; but most of the cases are considerably advanced when the physician is called in, and any such source of trouble has long since been gotten rid of.

Almost all cases of entero-colitis need stimulus, and brandy is the best form in which it can be given. Of course, the amount should vary according to the age, and Dr. Smith is in the habit

of giving three drops for every month of the child's age (when under one year) every two or three hours.

When the hydrocephaloid stage of the disease is reached, the opium should be withdrawn or given very cautiously; but the bismuth may be continued as before. At this period, however, we must depend principally on tonics and astringents, and one of the most useful agents that can be employed is the liquor ferri nitratis. The following prescription will prove of great service:—

℞. Tinct. calumbæ . . . . . f℥ ij.
Liq. ferri nitratis . . . . . gtt. xviij.
Syrupi . . . . . f℥ij.
M.

Dose, a teaspoonful.

At the same time the stimulus should be kept up as before.

Finally, the kind of diet used is of the utmost importance. If the child is under one year old it should at once be removed to the country, or a wet-nurse should be provided for it, as no artificial food is reliable. If both of these are impossible, the best cow's milk should be prepared in such a way as to resemble healthy human milk as much as possible. The milk should be allowed to stand for some time, and then only the upper third of it employed. In this way the larger part of the sugar and butter will be obtained, while the indigestible casein (which settles to the bottom) will be avoided. As regards farinaceous preparations for children under six months old, Dr. Smith prefers Mellin's Liebig's food, which also has the endorsement of such authorities as Eustace Smith and Tanner. Its taste is quite sweet from the dextrine and glucose which it contains, while it is almost entirely free from starch. When added to cow's milk, it makes as good a substitute for mother's milk as has as yet been obtained. After the age of six months infants can digest a certain amount of starchy food, and then Robinson's prepared barley may be used with advantage, if it is sufficiently boiled. As a rule, however, Dr. Smith prefers Ridge's food, which is highly recommended by Steiner, of Germany. Dr. Smith for-

merly used to employ Nestlé's food, but has been obliged to give it up, when the bowels are affected, on account of its laxative effect. In cases of habitual constipation in young infants, which is often a very perplexing condition to the practitioner, he has found it of very great service.—*Monthly Abstract.*

Surgical Treatment of Bronchocele.—Professor Bilroth has found that the injection of iodine is not as dangerous as was supposed. In some individuals a violent reaction occurs, in others, there is none. His method is as follows: He injects first from one-third to one-half of the so-called Pravaz syringeful of undiluted tincture of iodine, and, if this is well borne, in five or six days he makes a second injection of one half or a whole syringeful, repeating this twice a week. If the patient becomes thin, the treatment should be immediately stopped, as the emaciation may go on to an important degree. It should also be stopped if hæmoptysis appears. In general, the injections are well borne, and exert remarkable influence. They may be tried when suffocative symptoms have appeared, if the patient is kept under constant inspection; and even in cases about to be operated upon, their employment has been followed by recovery. It is essential that the iodine be injected well into the substance of the bronchocele, which may be done rapidly, the pain at the most continuing for five or ten minutes, and requiring cold applications, while in many cases it is entirely absent.

In cystic bronchocele he usually injects half an ounce of tincture of iodine, after having allowed the cyst to empty itself through a canula. The puncture is sealed up, and on the third day there is great swelling and accumulation of gas; from this moment absorption begins slowly, lasting about a year. In thirty-four cases treated in this way he had twenty-nine recoveries. The iodine is supposed to exert an alterative action upon the cells lining the cyst, and thus prevents further secretion. He has also tried incision with drainage, and stitching the wall of the sac to the skin. Three out of twelve treated in this way died however. Of thirty-seven cases of extirpa-

tion, twenty-four recovered. He finds the cartilages of the trachea so thinned by pressure that they become easily compressible, and hence several sudden deaths have taken place from swelling of the parts, giving rise to suffocation. The mortality in a series of ninety-four cases was eighteen, or about nineteen per cent. A case of goitre successfully treated by one subcutaneous injection of ergot was reported at the recent meeting of the American Medical Association.—*Boston Medical and Surgical Journal.*

Aneurism of Subclavian and Axillary Artery—Treated by Rest and Restricted Diet.—At a late meeting of the Clinical Society of London (*Lancet*, March 16, 1878), Mr. HULKE read the notes of such a case. The patient, a French-polisher, aged thirty-six, but much older in appearance, addicted to drink, after suffering from pains in the left shoulder and arm, supposed to be rheumatic, during two months, became aware of a swelling at the root of his neck on the left side, for which he went into King's College Hospital. Dissatisfied with what was there done for him, he left that hospital, and five months after the beginning of his illness entered the Middlesex Hospital, 28th March, 1877. At this time he had a large aneurismal tumour filling the axilla and implicating also the third, second, and presumably, to some extent, also the first part of the left subclavian artery; and he suffered great pain down the arm and over the shoulder-blade. He was kept in bed, and enjoined to keep perfectly still—not even to sit up or to move off the bed for any purpose, and he was put on a very limited non-stimulating diet. This was followed by rapid mitigation of the pain, by decrease of the aneurism and its obstruction by clot. He was discharged for disorderly conduct in June, at which time the axillary portion of the sac had shrunken to the size of an acorn, and was quite impervious, and the cervical part was very small, and felt very firm. It was thought that a slight pulsation of this part might be communicated. He afterwards entered Charing-cross Hospital, where, Mr. Hulke learned, doubts were entertained of the nature of the affection. This

Mr. Hulke took to be confirmatory of the permanence of the consolidation and occurrence of a cure. The encouragement the case afforded for the trial of a modified Valsalva's method in aneurism, where the ordinary direct surgical methods were not applicable, induced Mr. Hulke to submit the case to the consideration of the Clinical Society.—*Monthly Abstract.*

Cerebral Localization and Amputation of Extremities.—A case of amputation of the right thigh at the age of nineteen, followed by atrophy of the fold passing from the second left frontal convolution to the anterior marginal one, is reported by Drs. Le Double and Violet, of Tours. The patient died of tubercular pleurisy thirty-one years after the operation. The general appearance of the brain upon autopsy, was found to be symmetrical with equal lobes, with exception of a very evident depression of the membranes in front of the anterior marginal convolution, which became more apparent on the removal of these envelopes. The left anterior marginal convolution had the same volume as the right, but the fold passing from it to the second convolution presented all the usual phenomena of atrophy. As the case was one bearing upon the disputed issue of cerebral localization, the reporters took the trouble to locate analogous cases, of which they found seven on record. In the first, amputation of the left arm had been followed, in the course of five years, by atrophy of the superior portion of the ascending convolution of the paracental lobule. In the second, amputation of the thigh had involved atrophy of a cerebral lobe and corresponding marginal convolutions, in the course of thirty years. In the third, amputation of the thigh having been performed, the patient died nine months later of purulent infection, and no atrophy had yet taken place. M. Luys reported three cases of his own to the Academy of Medicine, France, in October, 1877, in which amputation of the leg had been followed by atrophy of an ascending frontal convolution. The seventh case was one of arrested development of the leg, reported by M. Laudouze, in which the atrophy involved the superior part of the ascending

parietal convolution. Analysis of these cases shows that the lesion occupied a point near the motor centre proposed for the leg by Curville, Duret, and Ferrier, in only one of them.—*N. Y. Medical Review.*

Remedies for Mastitis Puerperalis and Excoriated or Fissured Nipples.—For Mastitis: ℞ Linseed oil, f ℥iv; Hydrate chloral, ℥ ss.

Powder the chloral very fine, then mix it thoroughly with the oil. Apply, spread thickly, on a piece of soft woollen flannel, a little larger than necessary to cover the breast, with a central opening through which the nipple may protrude.

Apply as *warm* as can be borne, and keep warm whilst it remains applied, by warm sacks of chamomile flowers or hops. The plaster should be renewed every four to six hours, until all pain, swelling and induration are relieved.

For excoriated or fissured nipples:

℞. Powdered nutgalls, ℥ j, Oil peppermint, gtt. x.

Comp. tinct. opium, q. s. to make a thick paste.

Apply a small portion just after the child nurses, each time. Just before the child nurses, the nipple should be gently cleansed with a soft sponge, and warm tar-soap suds.—Dr. Q. C. Smith in *Pacific Medical and Surgical Journal.*

Hypodermic Injections of Chloroform.—These injections have been highly recommended by eminent physicians as a substitute for morphine. It is claimed that they are painless, that they relieve pain rapidly and for several hours, and that they are entirely innocuous, being followed by neither local nor general symptoms. Dr. Jochheim, of Darmstadt, however, reports a case in which the injection of only ten drops of chloroform, which is only one half what is frequently administered, was followed by severe local disturbances. Five hours after the injection a violent local inflammation set in, and in twenty-four hours a hard, black slough had formed, which was not cast off by suppuration until six weeks afterwards.—*Allg. Med. Cent. Zeit.—Medical Review, N. Y.*

On the Diagnosis and Surgical Treatment of Abdominal Tumours.—By T. SPENCER WELLS, F.R.C.S.—[*Abstract.*]—The first lecture was delivered on Monday, June 10th, at 4 P.M. The lecturer entered at considerable length into the mode of examining patients with abdominal tumours, describing in detail the methods of external, internal, and combined examination, and showed his form of note-book for recording cases. He described the mode of distinguishing collections of fluid in the abdominal cavity from the collections in cysts, and illustrated, from preparations in the museum, ovarian, renal, and hydatid cysts.

We give the following remarks on combined internal and external examination of the abdomen and pelvis :—

"With the thumb in the rectum and the forefinger in the vagina we can often get an accurate notion of what may be contained in Douglas's pouch; or, on the other hand, if the thumb is on the cervix uteri and the forefinger in the rectum, it is quite easy to feel a considerable part of the uterus, even to the fundus, and to get a notion of its size and form, or of anything attached to its exterior, either in front, behind, or at the fundus.

"Simon, of Heidelberg, laid great stress on the combined examination of the bladder and uterus after dilatation of the urethra, believing that this was not only useful in completing diagnosis of disease of the bladder itself, but also for examining growths in the vesico-uterine pouch, tumours on the anterior surface of the uterus, or on either side of the pelvis, where they extend forwards. Combined examination between the walls of the abdomen and the bladder may occasionally become necessary. In some forms of uterine disease combined examination may be assisted by previous dilatation of the neck of the uterus with a sponge tent; and in other cases, where examination by rectum alone, or combination of rectal and external examination, may be insufficient, as in inversion of the uterus or cogenital absence of this organ, combined examination by bladder and rectum, either by finger in rectum or sound in the bladder, or finger in bladder after dilatation of urethra,

gives all the information required; but this seldom can be necessary, except in cases of atresia of the vagina.

"As Hegar has pointed out, if the thumb of one hand in the vagina fixes the vaginal portion of the cervix uteri, the index finger of the same hand in the rectum can not only feel the posterior surface of the uterus distinctly, but can follow the sacro-uterine ligaments; while, if the other hand presses the abdominal wall backwards towards the sacrum, a very accurate idea can be obtained of the relations of all the pelvic organs. The uterus can be moved in various directions, and anything between it and the bladder or rectum is distinctly felt, supposing of course no extraordinary amount of fat in the abdominal wall, nor any peculiar rigidity in the vagina, interfere. Flexions of the uterus are thus very accurately recognised, and often replaced easily.

"These examinations must be carried on, sometimes with the patient on her back, sometimes on her side, and sometimes in both positions, and occasionally in the knee and elbow position, with the shoulders low, a change of position of the organs giving information otherwise unattainable.

"Simon lays great stress on the fact that when a patient is deeply narcotised the whole hand may be passed into the rectum. I have done this occasionally, but have not obtained much additional information than is given by one or two fingers.

"Hegar deserves the credit of introducing a method of examination which, in some cases, is really of very great value. He fixes the vaginal portion of the cervix uteri by a pair of long hooked forceps, by which the uterus may be ran downwards or on either side. The same object may be obtained more safely by one of Marion Sims's hooks, and there can be no better method of clearing up doubts about the size and position of the uterus, its connexion with neighbouring organs, and especially its relation with abdominal and pelvic tumours.

"I need not say that this must be done with due care; that no forcible traction upon the uterus must be exercised, and that steadying the organ will often be found quite enough.

"Suppose the uterus thus fixed and gentle traction made

upon it with one hand, and one or two fingers of the other hand are passed into the rectum, the posterior surface and sides of the uterus are felt, and, if necessary, the finger may be carried over the fundus. Sometimes the forceps or hook may be given to an assistant, while one or two fingers of one hand in the rectum and the other on the abdominal wall effect a combined examination of the most complete character. The connexion of the abdominal tumours with the pelvic organs may be very accurately made out. A slight pull on the uterus may be sufficient to clear up any doubts as to the connexion between the uterus and the tumour, while the pedicle or membranous adhesions with the rectum may be made tense and felt.

"Supposing a tumour is partially or entirely in the pelvis, in more or less close apposition with the uterus, by drawing the uterus downwards or forwards on to one or other side, the examining fingers in the rectum may follow the outlines of the tumour and notice how its movements are affected by the movements of the uterus, or if it may be seperated from the uterus. It is by no means unfrequent that you can separate the uterus from a tumour where previously there had seemed to be intimate connexion, or union apparently inseparable. The assistant drawing down the uterus or to one side, with two fingers in the rectum and the other hand over the abdomen, pushing up the tumour, we may often get an idea of the length of the pedicle, and in reference to uterine fibroids information as to the possibility of removing them. You find out the length and thickness of the cervix, whether it is fixed or movable, and whether it is involved in the new growth. You pull, as it were, the neck of the uterus out of the mass which in a measure involved it, and this shows the tumour to be a growth which may be removed."

The lecturer then described the chemical character of the fluids removed by tapping in ascites and in ovarian cysts, reserving the microscopical characters for the second lecture.

In the second lecture, delivered on Wednesday, June 12th, Mr. Wells described the microscopical elements found in ovarian fluids, dwelling especially on Drysdale's granular ovarian cell, and on certain groups of large pear-shaped vacuolating cells

observed in peritoneal fluid in cases of cancer of omentum and ovary. The remainder of the lecture was occupied by the demonstration of specimens from the museum, to illustrate the diagnosis of different forms of multilocular, dermoid, and solid ovarian tumours from the various abdominal tumours for which they may be mistaken. Very interesting specimens of splenic tumours removed during life by the lecturer were shown, large tumours of the kidney and liver, a large gall-bladder with thick walls, hydatids of the omentum, aortic aneurisms, false cysts formed by adhesions the result of chronic peritonitis, numerous specimens of intra-abdominal cancer, extra-uterine pregnancy, and tumours of the abdominal wall. The very rich collection of uterine tumours in the museum was reserved for the last lecture of the course.—*The Lancet.*

Idiopathic Mydriasis, treated with Eserine.—A. STANFORD MORTON, in the *British Medical Journal*, observes: Mr. Benton's case of Idiopathic Mydriasis, treated with Eserine, recorded in the *Journal* of July 13th, is interesting, as showing the immediate and beneficial effect of sulphate of eserine, where Calabar bean discs and solution of extract of Calabar bean had been employed without any result. I presume, where it is stated that "the patient was suffering from great pain in the left eye, occasioned (as was at once apparent) by dilatation of the pupil," it is meant that the pain and dilatation were produced by the same cause; and whatever this may have been, I should be very glad if Mr. Benton would give us any further information as to how he arrived at the conclusions that "the impairment of vision was due solely to the dilated pupil;" and that "there was no loss of accommodation, as the patient could see to read quite plainly through a pinhole aperture in a piece of card held close to the eye;" for the following cases, which have come under my observation, would seem to show that a patient, having mydriasis, without loss of accommodation, may read small type even without a pinhole aperture; and further, that a patient, with combined mydriasis and suspension of accommodation, may even read brilliant type through a small aperture.

Case I. was a young lady, not in the least myopic, who, after complete dilatation of the pupils had been produced by a very weak application of atropine, could read small type up to within five or six inches of her eyes, and who declared that her vision was not at all affected by the mydriasis.

Case II. was a youth at the Moorfields Hospital, who had applied a strong solution of atropine (four grains to one ounce), thrice daily, for more than a week; and, though he omitted it for two days, he had put in five or six drops on the morning the following note was taken: He was emmetropic, and could see well in the distance, though the largest type he could read at about sixteen inches was J. 16, but on holding a pinhole aperture close to his eye, he was able to read easily Jäger I (brilliant type).

I have tried other cases with similar results; but as my notes have already taken up more space than I intended, I will not go into details about them; and will simply remark that, till we have further particulars, it appears, from the observation made by Mr. Benton on May 19th, that "distant objects could alone be discerned" even though the patient could read quite plainly through a pinhole aperture, there is still left the possibility, if not probability, of the further element of loss of accommodation in this interesting case.

The Stomach Bandage in Ascites.—Mr. S. Mackenzie urges the value of firm bandaging in dropsy of the abdomen. He gives a case in the *British Medical Journal*, from which we quote the portion referring to his treatment.

March 30th.—The abdomen now measured thirty-six inches; its summit was about three-quarters of an inch above the level of the sternum, and it was flat on the surface. The edge of the liver could now be felt three inches below the point of the xiphiod cartilage. No irregularities could be felt on the surface of the liver.

May 11th.—The condition of the patient appeared stationary. There was still a considerable amount of fluid in the peri-

toneal cavity. She passed about forty ounces of urine in the course of the twenty-four hours. *The abdomen was ordered to be tightly bound* with a flannel bandage, so as to exercise pressure.

June 4th.—When the bandage was first applied to the abdomen, the pressure caused a feeling of sickness, but soon the patient bore it without discomfort; in fact, it appeared to afford her relief. The measurement around the abdomen, at the level of the umbilicus, was now thirty-three inches. She passed about thirty to forty ounces of urine daily, and did not perspire much. I now ordered a properly made abdominal support to be constructed for her by the instrument maker. It was arranged with straps, so that it could be tightened to a very considerable degree.

June 29th.—The patient expressed herself, and appeared to be, in good general health, but she was still much wasted. The abdomen looked much smaller, and measured thirty-one and a half inches at the level of the umbilicus. There was pseudo fluctuation on percussion, but it did not convey the impression of being due to fluid. The liver could be felt in the same situation as before. Its surface was smooth, its edge firm, sharp and regular. The spleen was not to be felt in the abdomen. Its dullness reached the seventh rib in the axillary line. She passed, on an average, fifty to sixty ounces of normal urine daily. She ate and slept well. She was now allowed to get up, but was directed to continue wearing the abdominal support. The latter, owing to the diminution of the size of the abdomen, had required to be altered. After being up in the ward for a few days, the patient was allowed to go into the garden; and there then being no reaccumulation of fluid in the abdomen, she was made an out-patient. This was in July, 1875. The patient has been continually under my observation from then until now. She has had no recurrence of the ascites. Her general condition of health is feeble, but she is able to do her household work and earn her living. Unusual exertion causes slight œdema of the feet. She has never had albuminuria.—*Med. and Surgical Reporter.*

The Coming Duties of the Accoucheur.—Prof. Gaillard Thomas, lecturing on a case of neglected prolapsus uteri, makes (*New York Medical Record*, Dec. 22) the following observation :—"The time is not distant when confinement cases will be treated very differently from what they are at the present day. This is a subject of the utmost importance. There is the most urgent need of a radical change in the practice of the majority of the profession, and the time is ripe for the appearance of a stirring and able paper on the 'Proper Management of Natural Labour,' which will awaken medical men to a sense of their duty in obstetrical cases. The physician should be expected and required to visit his patient from time to time all through her pregnancy, in order to see that everything is progressing favourably for a successful delivery, and to remove, if possible, any condition (as albuminuria, for instance) which is likely to interfere with this; and I am fully convinced that it will not be long before the accoucheur who does not pursue this plan will be held culpable. Again, he will be held equally culpable if he discharge his patient at the ninth day, or at the end of a fortnight, without making a physical examination, to ascertain that the parts have sustained no injury from the strain and pressure of parturition, and that the process of restoration to the normal condition is going on satisfactorily. A little attention paid at that time will often prevent the most serious consequences in the future. If the physician had made such an examination in the case, and had found the cervix lacerated, he might have waited a month, and then, ascertaining that trouble was resulting from it, he should have sewn it up, and also restored the perineal body which had given away. * * * All this could have been readily done in the second month after delivery, and it would certainly have been a great deal better to do it than to wait thirteen years before undertaking the operation. It is true that this woman has suffered comparatively little pain and inconvenience in consequence of the neglect of her physician, but this is a very rare exception to the general rule; and, as I said before, the time is not far distant when the medical man will be held responsible for allowing such

a condition to continue without interfering to prevent the evil results so sure to follow from it."—*Med. Times and Gazette.*

On the Combined Use of Chloroform and Morphia.—Professor Kœnig, in a communication to the *Centralblatt fur Chirurgie*, (No. 39, 1877), says he has combined the hypodermic administration of morphia with that of chloroform in a large number of cases, with very favorable results. It is seldom necessary to give more than one or at most two centigrammes (one-sixth to one-third grain).

The indications for the use of morphia during chloroform-narcosis are twofold: 1. Motor disturbances occurring before or during chloroform-inhalation unless these are very transitory: 2. Operations of such a nature that the chloroform-narcosis cannot be maintained throughout, and especially towards the end. Among the latter may be particularly mentioned operations upon the eye, plastic operations, extirpation of tumours from the soft parts of the face. The object of using morphia is to induce analgesia over and above the chloroform-narcosis, and also that this narcosis should not be pushed so far. As regards any danger which may be connected with the combination of narcotics, Kœnig esteems this lightly. He says that out of seven thousand cases in which he has used chloroform, none have died from it, and many of these took morphia also. —*London Med. Record*, Feb. 15, 1878.

Abortive Treatment of Furunculus.—Dr. Lieven observed at the Petersburg Medical Society (*Petersburg Med. Woch.*, Dec. 29) that all modes of treatment hitherto tried (such as early incision, cauterizing, and cold or warm applications) have failed to arrest the further development of furunculus that has once commenced. The following procedure, however, brings it to a stand: A burning, pricking, itching, suddenly occurring in a normal portion of the skin, announces the commencement of the development of the furunculus, and on the same day a small and quite superficial induration can be felt at the spot. If the skin be now superficially scraped with

a small knife, so that a drop or two of blood may be pressed through the epidermis, no furunculus will be developed. This result would seem to show that the affection originates in the uppermost layer of the corium, and perhaps in the capillaries of the papillæ, and not, as hitherto received, in the subcutaneous connective tissue, with succeeding necrosis of the corium and epidermis. Disturbance of the digestive organs (frequently diarrhœa) always precedes or accompanies furunculus; but a plethoric or decrepit constitution is no necessary condition, as it may occur in one that is quite normal.—*Med. Times and Gazette.*

Sulphate of Quinine.—A property of Sulphate of Quinine not well known.—This property consists in the modification it causes on suppurating surfaces when it is applied locally. The injection of a solution of 60 centigrammes of sulphate of quinine in 60 to 100 grammes of distilled water is very advantageous in the treatment of empyema. The same injection is efficacious in gonorrhœa, and an ointment of sulphate of quinine exercises a cicatrizing action on wounds and chronic ulcers. The injections of quinine have the same action on suppurating cavities and fistulous tracts.—*Gazetta Medica Italiana.*

Uterine Hemorrhage.—In a recent discussion at the Obstetrical Society of London on the value of injection of chloride of iron in uterine hemorrhage, Dr. Robert Barnes said the point of the syringe should be carried to the fundus. This could only be insured by introducing the hand into the uterus. Clots should be removed before injection. One to four is a good strength, but a stronger solution might be used if necessary, but it should not be escharotic. This means of arresting hemorrhage had stood the test of experience, and had saved many lives. The test for its use is the possibility of exciting reflex action. Where this cannot be done, use perchloride of iron.—*Med. Times and Gazette.*

The Dilatable Tampon to arrest Hæmorrhage after Lithotomy.—Dr. C. F. MAUNDER, in the *British Medical Journal*, remarks: Having to perform lateral lithotomy out of town a short time since, on a patient sixty-five years of age, with a large prostate and deep perinæum, I provided myself with one of Mr. Buckston Browne's instruments. The operation was performed on a curved staff, and the patient was soon comfortably in bed. After a short time a little bleeding occurred; and as I had to return to London, I introduced the tampon and stopped it. One of my dressers, Mr. W. Whitford, remained in charge, with the acquiescence of Dr. Wolston, the medical attendant. On visiting this gentleman in the evening, eight hours subsequently to the operation, I found him very comfortable indeed; no bleeding, and the urine flowing freely through the tube. At 5 A.M., Mr. Whitford allowed the tampon to collapse; and at 9 A.M. I removed the instrument. The patient made an uninterrupted recovery.

Should the tampon become somewhat flaccid too soon, as it may do by an insidious escape of air, it can be readily refilled. Certainly I shall never perform lateral lithotomy without having one of these instruments at hand.

Turpentine as an external application in Small-Pox.—Dr. Farr, of Lambeth, ascribes great value to turpentine as an external application in small-pox. He claims that it at once relieves any smarting or irritation, effectually corrects the unpleasant odor given off in the more confluent form of the disease, and seems in a marked degree to arrest pustulation, thereby modifying and sometimes entirely preventing pitting. In consequence of its powerful antiseptic and disinfectant properties, it tends, moreover, to prevent the spread of the infection. Mr. Farr uses it in the proportion of one part of rectified spirits of turpentine to three or four of olive oil, and applies it night and morning by means of a feather.—*The Lancet*, May 11th.

CANADA

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TWO CASES OF URETHRAL FEVER,

By James Bell, M. D.

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(Read before the Medico-Chirurgical Society, June 21st, 1878.)

The subject of my paper, 'Urethral Fever,' is well illustrated by two cases which occurred in the Hospital last winter. They were both in Dr. Roddick's wards. The first is that of a sailor, George Ives, who was admitted for stricture of the Urethra on the 23rd of October, '77. He was a large, well-built, muscular young Englishman, 24 years of age. His family history was obscure. The only reliable fact that could be ascertained was that his mother died of some wasting disease—probably Phthisis. He had been at sea since he was 12 years of age and had always been healthy. He had gonorrhœa 6 years ago and was treated by his Captain with injections, and recovered in a month without having any of the ordinary complications or sequels of gonorrhœa, as orchitis, bubo, or stricture. He had no difficulty in micturition after this attack. About 2 years ago he contracted gonorrhœa again. It lasted six months, and when his ship arrived in New York he consulted a doctor, under whose treatment he rapidly recovered. The treatment consisted in injections and the administration of capsules—probably of copaiba. About nine months ago he noticed that in micturition the stream was very small and often irregular and twisted at the meatus, and he had sometimes to strain a good

deal to evacuate his bladder. These difficulties gradually increased, and once at sea he had complete retention for three days, and was ultimately relieved by a comrade by means of a gum elastic catheter. On his last voyage he had complete retention again; this was about three weeks before admission. He was relieved and enabled to evacuate his bladder on this occasion by means of a hot hip bath. On examining his penis, he was found to have a bridge of tissue extending across the meatus near its upper part. On the 27th October, this band was divided and the urethra was explored with *Lister's Metallic Sound*, and a firm tight stricture was discovered in the usual situation—about the junction of the spongy and membranous portions of the urethra. An instrument was not passed through the stricture,—in fact, this feat was scarcely attempted. This was about half-past three in the afternoon. A small piece of gum-elastic catheter was tied into the meatus where the small band had been severed. About two o'clock next morning he had a severe rigor. His temperature, unfortunately, was not taken until seven in the morning. It was then 103° F. He was ordered tr. aconiti, m. v liq. ammon. acet, ʒ ss. 4 q. h. He had also some diarrhœa which was easily checked by the use of bismuth. His temperature reached 104.8 in the evening, and he was given twenty grains of quinine. His urine was not measured, but he passed a fair quantity which was very high-colored and deposited a large amount of lithates. It contained no albumen. He was very dull and drowsy and complained of head-ache and a feeling of restlessness and anxiety. He was now thoroughly examined, but no organic disease could be discovered.

Oct. 30th.—Still flushed and feverish, great head-ache and restlessness. Is somewhat delirious at night and can with difficulty be kept in bed. Tongue coated and dry. He was ordered chloral and bromide of potash at night, which, in moderate doses, had little effect upon him.

Oct 31st.—Has difficulty in micturition; has to stand up to evacuate his bladder. He passed 70 oz. of urine in twenty-four hours. The urine now contains two or three per cent. of

albumen and deposits a small quantity of pus; it deposits a large quantity of lithates on standing. Diarrhœa set in again but was easily checked.

Nov. 9th.—Fever continues; little change in symptoms, except that prostration is greater. He is restless and delirious at night. He was ordered a chloral draught at night again, but it had no effect on him; he has now considerable tenderness on the right side of the abdomen and in the right loin. Up to this time we had considered this a case of urethral fever, but the continued high temperature, which so far had been pretty regular; the increasing prostration and delirium at night; the tenderness on the right side of the abdomen and the diarrhœa, and the general severity of the case, began to make us suspect that it was typhoid fever, in spite of its mode of onset and several other circumstances which were opposed to that diagnosis. He was accordingly transferred to the medical wards in charge of Dr. Ross, who examined him carefully, and gave it as his opinion that he had not typhoid fever, but from the position of the tenderness in the abdomen, which was over the right kidney and along the right ureter, and the presence of the slight amount of pus in the urine which persisted without any appreciable variation from day to day, he thought that he had probably some organic disease of the right kidney; he found all his other organs healthy. He remained in the medical wards under Dr. Ross's care until the 30th of November. For about two weeks there was but little change in his symptoms, but his temperature was very erratic—the difference between the morning and evening temperatures being sometimes as much as 8° F. He then began to improve, and on the 30th November he was re-transferred to the surgical wards, but nothing more was done for his stricture, and on the 10th of December he was discharged.

The second case was from the country—a married man, 30 years of age, of Irish descent, large and well-built. He was admitted on the 5th of November, '77, for stricture of the urethra. He has no history of constitutional disease; was always very healthy; never had rheumatism or any disease

that he can remember. He attributes his stricture, which he says he has had all his life, to riding bare-backed when a boy, having received several slight injuries in that way. He had gonorrhœa sixteen years ago, which aggravated his stricture a good deal. His stricture began to trouble him seriously about seven years ago, when he consulted a doctor, who passed a catheter for him. He believes that it never entered his bladder. He then consulted another doctor, who passed a No. 3, and he felt "all right" for twelve months afterwards. He was then obliged to consult another medical man, who passed bougies, which gave only temporary relief. He has had trouble ever since in micturition, especially in spring and fall. Two years ago he was in the hospital under the care of Drs. Reddy and Wilkins, who ruptured his stricture with *Thompson's Divulsor*. He left the hospital soon after, and had no difficulty for a year and a-half afterwards. He had no instruments passed after leaving the hospital. During the last six months he has frequently been unable to evacuate his bladder, and on these occasions was relieved by the late Dr. Cline, who passed a No. 3 silver instrument. He never had complete retention until six months ago, when he first consulted Dr. Cline; he never suffered from chills or fever in any of these manipulations—nor at any other time. He was admitted about 10 o'clock in the morning of the 5th of November, '78; at 2 p.m., four hours afterwards, Dr. Roddick explored the urethra and discovered a tight cartilaginous and somewhat elastic stricture at the junction of the spongy and membranous portions of the urethra. He made two or three unsuccessful but not at all forcible attempts to pass a catheter into the bladder; no blood was drawn, and there was no reason to suppose that even an abrasion of the mucous membrane had been produced. About half-past four, two hours after the operation, he had a severe rigor, and his temperature ran up to 103° F; he perspired profusely and was very restless. During the night he had two slight chills; he complained of severe head-ache, and could not sleep. Next morning at 11 a.m. he had another severe rigor, followed by a temperature of 106° F.; he was then given

fifteen grains of quinine. At 4 p.m. he had another chill, and a temperature of 101° F. At 2 o'clock next morning he had another chill less severe, and his temperature rose to 103° F.; he had still another slight chill in the afternoon. His urine, unfortunately, was not measured during the first twenty-four hours after the operation. He passed some urine, however—I don't know how much; but it was dense, high-colored, and contained no albumen. He was very restless, complained of severe head-ache, and slept none at all for three days during this attack. His tongue was coated and he had no appetite. He had no pain, except the head-ache. All this time he was confined to bed and on milk diet; there was no vomiting nor diarrhœa. He was now thoroughly examined, and all his organs found to be healthy except his heart. He had both mitral and aortic disease, with great hypertrophy of the left ventricle. He was ordered spts. ether, nit. ℥ss., tr. digitalis, mv. liq. ammon. acet. ℥ii t. i. d. He had no more chills after the 7th, and by the 10th his temperature was normal and he felt quite well. On the 14th, a No. 5 gum-elastic catheter was passed, and left in the urethra for two hours; no bad results followed. This was done daily for the next three days without any chill or rise of temperature. On the 20th, at his urgent solicitation, he was put under the influence of chloroform and an attempt was made to pass *Thompson's divulsor*, but without success. A No. 5 gum-elastic catheter was however passed and immediately withdrawn; this was about 2 o'clock in the afternoon. Next morning at 11 o'clock, twenty-one hours after the operation, he had a chill and his temperature rose to 103 3-5. He was given quinine, grs. xx, and by evening his temperature was 101⅔; next morning it was normal, but he felt impatient and discouraged. He was ordered to remain in bed and have a hot hip-bath night and morning. Two days later, business difficulties compelled him to leave hospital and return to the country, and I have not heard from him since.

Now, it is an established fact in pathology that operations of any magnitude on any part of the body, are followed by febrile reaction, and as a rule this reaction is in direct propor-

tion to the magnitude of the operation—or, in other words, to the amount of injury done, due allowance being made of course for the patient's surroundings, &c. This rule does not hold good in operations about the urethra and bladder, where the most trifling operation may produce alarming or even fatal results; while severe operations, such as lithotomy and lithotrity, external urethrotomy and rupture of structure by divulsion, are seldom followed by bad symptoms and hardly ever by the group of symptoms constituting the disease called "*Urethral fever.*" This disease seems to follow as a rule the simpler operations on the urethra, as the passage of a catheter or the gradual dilatation of a stricture, and though it may occur in any patient, those who have diseased kidneys are thought to be specially liable to it; while the use of anæsthetics seems to afford protection against it. It generally sets in a few hours after the operation, and it varies greatly in degree, the simplest consisting of a chill, or perhaps two, followed by slight fever and head-ache, which continues for twenty-four or thirty-six hours, and then leaves the patient as well as before. This slight form is no doubt constantly overlooked, as the patient is frequently quite well by the time of the surgeon's next visit.

Secondly. There may be a severe rigor, followed by high fever, great restlessness or delirium, and in a few hours by profuse perspiration. These chills with fever and sweating may be repeated at intervals of a few hours for several days, and the patient recover in a week or two without the supervention of other more alarming symptoms; or, there may follow a number of days of general febrile excitement, delirium and prostration, with scanty high-colored urine, perhaps containing albumen, diarrhœa, and frequently copious perspirations. There may be remissions from time to time. To this class both the cases which I have reported belong,—the second case having a series of chills with high fever, lasting over three or four days; the patient in the first case suffering from continued fever for weeks, with many of the symptoms enumerated above, and also some pus in his urine, which I believe to have originated in the bladder.

There are still other cases in which the operation is followed by a violent rigor, high fever, prostration, alarm, anxiety and excitement, violent vomiting, profuse diarrhœa, suppression of urine, and death from uræmia.

Finally, true pyæmia and septicæmia may follow operations on the urethra and bladder, as they follow operations elsewhere, and then they are frequently mistaken for urethral fever, which is not to be wondered at when we consider the similarity of the symptoms in these diseases. Pyæmic abscesses are found post-mortem in the prostate, the liver, kidneys, joints, &c., and then these cases seem to support the view that urethral fever is essentially a form of pyæmia. Without going into the discussion of this subject, I believe that urethral fever is due to nervous shock, and that clinically it is not always discriminated from septicæmia and pyæmia. In support of this view I would simply ask, in what other way can we explain its rapid onset and different degrees of severity from such different degrees of causative irritation, or how can we call those symptoms pyæmic which set in two or three hours after the passage of a gum-elastic catheter which can scarcely have abraded the urethra, and before the passage of urine over the possibly abraded surface can have left anything for absorption by it? And, again, how seldom do these symptoms occur in the course of the different suppurative diseases of the genito-urinary tract? With reference to treatment, the great object of course is prevention, for when once established medication seems to have little, if any, effect. Knowing as we do that patients with kidney disease are specially liable to it, and that in them it is particularly dangerous, every case ought to be carefully examined before operation and the patient placed in the most favorable conditions. Some surgeons recommend the use of five-grain doses of quinine, two or three times a day, for several days before the operation. Any operation about the urethra, or even the dilatation of a stricture, generally causes so much pain that anæsthetics are called for, and it is a satisfaction to feel that in using them you are not only sparing the patient the pain of the operation but lessening its risks. Tr. ferri. perchlor, in ten minim doses, three

times daily, has been used as a prophylactic, and Fleming's tr. of aconite in two minim doses immediately after the operation, has been very highly spoken of, and especially by Mr. Harrison, of Liverpool, who, in a recent clinical lecture (which was published in the *Lancet* last winter) said that he invariably used it and that he had found it almost unfailing.

Quinine in large doses may be said to be the standard remedy when the disease has been established. Diarrhœa, vomiting and suppression of urine, &c., and other special symptoms, must of course receive appropriate treatment.

CASE OF PARTIAL PLACENTA PRÆVIA.

By J. A. Hutchinson, M. D., C. M.

On the 20th of August last, I was called in haste to attend H. S. æt 33, a woman living on Bonaventure street, who was said to be bleeding from the womb. On my arrival at the house, I found a rugged French woman, seated on a chair in a weak condition. On enquiry she told me that she had had eight children and one abortion at the third month of pregnancy; that she was now in the seventh month of gestation; that her general health had always been good; that she had never any previous hæmorrhages, or felt anything unusual during her present pregnancy; that she had been engaged running a sewing-machine during the day, and had felt slight pains in the abdominal region; and that about two hours previous to my arrival, she experienced a severe pain, and felt that blood was escaping from the vagina. She then sent for her husband to come and bring a doctor, and, as previously stated, it was two hours before I was in attendance. She had remained in the chair all the time, being afraid to move, as she felt that the hæmorrhage was still continuing, and imagined that if she attempted to lie down, the child would be immediately expelled. This she wished to avert until a doctor was present. I at once caused her to lie down, and found that her clothes were saturated and the blood had coagulated in large clots. Fortunately, the hæmorrhage was easily controlled, and on a vaginal examination

being made, the os was found to be dilated to the size of a penny-piece. I could also feel the boggy and unresisting mass of the placenta, which was at first mistaken for a coagulum of blood. At this time I did not push the examination further, and finding the hemorrhage had subsided, allowed the patient to rest for a time. She had still a strong, regular pulse, and did not exhibit much evidence of exhaustion. The labor pains occurred at intervals, but were not at all severe. The child was still alive, as the fœtal heart could be heard, and with greatest distinctness on the right side. Made another examination, and diagnosed placenta prævia, as what I had previously mistaken for blood clots could not be detached, and on auscultation the uterine souffle was heard with greatest distinctness over the site of the os. Under the circumstances, I deemed it advisable not to temporize, but to aid nature in the expulsion of the child, as it was then of a viable age, and, at any rate, this occurrence seemed inevitable. With this end in view, a moderate dose of ergot was administered, which was hoped to serve a double purpose, viz: to increase the contraction of the uterus, and by pressing the head of the child against the placenta, would check the escape of blood; and, also, to assist in the expulsion of the child. The necessity of puncturing the membranes was happily avoided, as at this time the liquor amnii began to escape. It did not seem to flow away readily, being, I think, impeded by the pressure of the placenta. At every pain an additional amount would be evacuated, and would be accompanied with clots of blood. When the os became largely dilated, I could pass my fingers up at one margin of the placenta, and feel the head of the fœtus. The hemorrhage continued, though not to an alarming extent, in the intervals between the pains. At the next examination, found a hand down below the head and at the margin of the os not covered by the placenta. This I pushed up, and, at the same time, separated the attachment of the placenta from around the margin of the os. A strong pain following, the head came down, engaging in the os, and the child was soon after born in the second position. Unfortunately, the child showed no signs of life and could not be resuscitated.

Hemorrhage did not follow to any alarming extent, nor any other unfavorable symptoms. Her pulse continued almost normal, neither did she exhibit signs of exhaustion. The uterus contracted to the cricket ball shape and feel, having expelled into the vagina the placenta, which had to be removed manually. The ordinary treatment followed, and the patient soon after resumed her usual health.

The above case must be considered as resulting unusually fortunately to the mother, when we consider the great mortality attending such a complication of pregnancy as placenta prævia. The death of the fœtus I take to be due to the loss of the maternal blood, and by respiration having been carried on during labor by a placenta which was only partially attached. Its death would also be hastened by its being premature.

It may be interesting here to add a few remarks with respect to the *cause* of this abnormal placental site. The older writers believed that the placenta had originally been situated at the fundus, from which it had accidentally fallen to the lower part of the uterus. It was supposed by Tyler Smith to depend on the ovule not having been impregnated until it had reached the lower part of the uterine cavity. Others think that an abnormal size or unusual shape of the uterine cavity may favor the descent of the impregnated ovule. This opinion is supported by the fact that placenta prævia generally occurs in women who have borne several children. The cause of this abnormality, however, is still an open question, and many eminent authorities consider it purely accidental.

The *source* of the hæmorrhage is now generally admitted by authorities to be from the lacerated utero-placental vessels. In Playfair's system of midwifery, the following anent this matter occurs: " Only a few years ago, Sir James Simpson advocated, with his usual energy, the theory sustained by his predecessor, Dr. Hamilton, that the chief, if not the only source of hæmorrhage, was the detached portion of the placenta itself. He argued that the blood flowed from the portion of the placenta which was still adherent to that which was separated, and escaped from the surface of the latter; and on this supposition

he based his practice of entirely separating the placenta, having observed that, in many cases in which the after-birth had been expelled before the child, the hemorrhage had ceased. The fact of the cessation of the hæmorrhage, when this occurs, is not doubted; but Simpson's explanation is contested by most modern writers, prominent among whom is Dr. Barnes, who has devoted much study to the elucidation of the subject. He points out that the stoppage of the hæmorrhage is not due to the separation of the placenta, but to the preceding or accompanying contraction of the uterus, which seals up the bleeding vessels, just as it does in other forms of hæmorrhage. The site of the loss was actually demonstrated by the late Dr. Mackenzie in a series of experiments, in which he "partially detached the placenta in pregnant bitches, and found that the blood flowed from the walls of the uterus, and not from the detached surface of the placenta. The arrangement of the large venous sinuses, opening, as they do, on the uterine mucous membrane, favors the escape of blood when they are torn across; and it is from them, possibly to some extent also from the uterine arteries, that the blood comes, just as in post-partum hæmorrhage, when the whole, instead of a part, of a placental site is bared."

The *cause* of the hæmorrhage is viewed differently by different authorities. It is contended by some that it is due to a loss of proper relation between the placenta and the uterus where it is attached. Dr. Mathews Duncan, however, maintains that the hæmorrhages are accidental, being due to similar causes to those which give rise to hæmorrhages when the placenta is normally placed; the abnormal situation of the placenta rendering the causes more apt to operate.

MONTREAL, August, 1878.

[The Editor of this Journal does not hold himself responsible for the opinions expressed by contributors.]

Hospital Reports.

MEDICAL AND SURGICAL CASES OCCURRING IN THE PRACTICE OF THE MONTREAL GENERAL HOSPITAL.

Case of Acute Tuberculosis.—Under care of Dr. REDDY.—Reported by JAMES BELL, M.D., Asst. House Surgeon.

J. F., aged 40, a large, well-built Englishman, was admitted on the 13th of May, complaining of cough and pain in the chest. He was also delirious and unable to give any reliable account of himself. From his friends it was learned that he was a very hard drinker, had had *delirium tremens* several times, and had also had several attacks of acute illness, with lung symptoms. The nature of these attacks could not be determined. He was a machinist, and, when sober, a hard-working man. About four weeks prior to his admission to hospital, he had been drinking very hard, and was obliged to give up work. He became somewhat delirious, especially at night. This was looked upon as the natural result of his spree, and little attention paid to it for some days. He had nothing more to drink, but remained delirious at times, and was very despondent.

About four or five days before his admission he became much worse, was feverish and complained of cough and pain in his chest. On admission his temp. was 103° F.; pulse, 108; resp., 30. He complained of a good deal of pain in the chest, but could not localize it. His expectoration was viscid and rusty. He was given chloral grs. xx, pot. bromid. 3i, as he was delirious and could not be kept in bed. He was quieter after the draught, but did not sleep.

On examination, there was found to be dulness on percussion over upper lobe of right lung—slight in front, but more marked behind.

There were dry bronchial râles and fine, moist râles to be heard all over both lungs. In the right infra-clavicular and scapular regions (the dull area) there was fine crepitation, and the breathing almost tubular over the rest of the lung. Fine crepitation was also heard over a limited area at the base of the

left lung, in the infra-axillary region. Heart normal. Ordered a mixture of ammon. carb. and liq. ammon. acet., and poultices to the chest.

Next morning his temperature was 101° F.; pulse, 104; resp., 40; physical signs unchanged. Ordered quinine, grs. xx, in the afternoon.

May 15*th*.—Had a very bad night. There is now constant low muttering delirium. Surface is very livid. Ordered spts. ether co. mxx 3 q. h. and brandy. Little change in physical signs, except that there is a small circumscribed area of dulness at base of left lung, near axillary margin; pulse, 140, very feeble; resp., 40; temp. 104°. Ordered quinine, grs. xx (per anum., as he refused to swallow it.) Urine high-colored, deposits lithates and phosphates on standing; no sugar nor albumen.

May 16*th*.—Condition scarcely changed since yesterday; still delirious; pupils contracted to the size of pin-heads. Ordered another dose of quinine (grs. xx).

May 17*th*.—Had a very restless night, and is evidently sinking; surface is very livid, and urine and fæces are passed involuntarily. He remained in this condition during the day, and died at five o'clock next morning. The temperature throughout ranged from 102° to 104° F., and did not seem to be affected by the large doses of quinine.

Post mortem.—Eight hours after death. Body fairly well-nourished. No rigidity. On opening the abdomen extensive adhesions are found between the visceral and parietal layers of the peritoneum, chiefly connecting the omentum transverse colon and surface of the liver. The coils of the small intestines are glued together by soft flaky adhesions. The mesentery and peritoneal covering of the small bowel and caecum are covered with numerous small firm tubercles varying in size from a pin's head to that of a small shot.

Thorax.—Both lungs are intimately adherent to the chest wall.

Right Lung.—Numerous small evident tubercles in the lung tissue just beneath the pleura; lower lobe is covered with a thi

layer of old pleuritic membrane. From apex to base the lung is stuffed with small grey miliary granulations. At the apex they are not so abundant, and there are one or two firm nodules the size of peas. The lung is more or less crepitant throughout, but in the upper lobe there is a good deal of exudation into the air cells and the lung barely floats in water. There is a very small cavity in apex.

Left Lung.—Crepitant throughout, though the lower lobe is firm, heavy, and dark red in color; it is also stuffed with tubercles from apex to base. There are no nodules nor cavities. The tubercles are disseminated, not arranged in groups, and present a greyish, semi-translucent appearance.

Heart.—About two ounces of clear amber-colored fluid is found in the pericardium. Right auricle is filled with a dark clot; right ventricle also contains dark grumous clots.

Left Auricle contains a dark jelly-like coagulum.

Left Ventricle contains a small black clot; valves and chambers normal.

Spleen.—355 grammes. Capsule presents a spot of localized thickening. On section, Spleen pulp is of good consistence and studded with innumerable small tubercles the size of pin-points. They are of uniform size and resemble grains of sand they are so excessively small.

Kidneys.—Left, 230 grammes. Capsule detaches readily. Cortex coarse looking on section. Malphigian bodies very distinct. Scattered throughout the substance are numerous small tubercles. A small brownish calculus found in one calyx.

Right Kidney.—180 grammes; appearance similar to that of left kidney. It contains tubercles also.

Liver.—Firmly adherent to diaphragm. Numerous tubercles in adhesions. Organ soft; no tubercles in substance.

Stomach.—Normal.

Small Intestines.—Peritoneal surface studded with tubercles. Mucous membrane also infected; no ulceration.

Brain and Membranes.—Normal. No tubercles discovered anywhere.

Case of Aneurism of the Thoracic Aorta.—Under the care of DR. REDDY. Reported by W. R. SUTHERLAND.

P. P., aged 48, of Irish descent, unmarried man, of medium height, strong and muscular, was admitted into the Montreal General Hospital on the 19th April, 1878, complaining of short breath and constant cough (which has a peculiar ring), with pain in right shoulder, side of neck and crown of the head. Pain is much aggravated on attempting to lie down, and a sense of choking comes on so that he has to be propped up in bed.

He expectorates large quantities of thin, frothy mucous, with purulent patches through it. Dyspnœa is not worse after exertion; appetite good; voice somewhat hoarse.

Family history obscure; but, as far as can be made out, it is good.

He has never had syphilis, nor any other disease of any consequence. Was a soldier for twelve (12) years, during which time he saw active service and endured severe hardships. Since his discharge from the army, has been a policeman, porter, and, for the past ten (10) years, caretaker of the armory. Has been a man of regular habits, and enjoyed good health up to January, 1877, when he was first troubled with more or less pain in the right shoulder and side of the head. Cough and hoarseness were not noticed until July, 1877.

On examination, the superficial veins of the front of the chest are seen to be moderately distended, one markedly so, running from left axilla across chest to sterno-clavicular articulation. Breathing is almost entirely abdominal. Visible pulsations in both super-clavicular regions and in superficial arteries.

Pupils are equal.

Mensuration—During inspiration left side measures 18¼".
" expiration " " " 18.
" inspiration right " " 18½.
" expiration " " " 18¼.

Palpation—Appreciable impulse over first bone of sternum. Percussion gives no decided dullness along upper part of the chest, except a shade over the first bone of the sternum, more

marked on the right side. Left lung hyper-resonant in front and behind.

Auscultation.—Find respiration feeble all over the chest. Vocal resonance somewhat increased over upper part of chest. Loud sonorous râles over front of the chest, and stridulous breathing over both back and front of the chest. Double murmur in first space of both sides, much louder on the right.

Heart.—Point of maximum pulsation is at 1st space, to the right of the sternum, and at this spot there is a double sound, also a double murmur, transmitted all through the arch. Systolic, short, soft and flowing. Diastolic, very short and very soft. Both sounds and murmurs are less distinct at 2nd space, audible but less distinct at 3rd, also audible at ensiform cartilage. Inside left nipple is a systolic murmur, followed by a clear second sound without a murmur.

Urine—Contains no sugar nor albumen; sp. gr. 1.014.

April 21.—Condition is unchanged. Is taking liq. morphia, ℥ii; vin ipecac, ℥i; syr. pruni virg., ℥iii; aq. ad ℥vi;—dose, a table-spoonful three times a day.

May 2.—Passed a bad night; cough was very distressing, being hard and without much expectoration. The pain in his head, neck and shoulders is much worse on damp days.

May 7.—Is much weaker, and not as well as usual, though his condition is apparently unchanged. Has been ordered a tonic of quinine and iron.

May 29.—Up to this time there was no change to be noticed, except that the veins are more distended; visible pulsation very marked over right sterno-clavic articulation. In addition to the marked impulse over the upper part of the sternum, a thrill can be distinctly felt. Pain is less severe on the right side of the head and neck, but he cannot raise his right arm higher than on a level with his shoulder without experiencing very great pain of a lancinating character just over the coracoid process. Cough is much worse and sputamuco purulent.

June 4.—For the past few days he has been troubled with rheumatic pains in his ankles. Yesterday afternoon, had a

very severe attack of dyspnœa, which lasted about half an hour. Pulse was 120; temp. 100°.

He continued to suffer from dyspnœa and pain in the chest, which he could not localize, until June 12th, when he died after a prolonged attack of orthopnœa.

Autopsy, 30 hours after death:

Body that of a medium-sized man; rather emaciated.

On opening the abdomen, intestines appear normal.

Thorax. — Lower lobe of right lung adherent at lower part by soft recent adhesions. Further up there is a plastic lymph, non-adherent, and beyond this, intense congestion of the pleura; the surface of the upper half of the upper lobe alone is healthy. The upper part of the lung is compressed by about one pint of turbid serous effusion. The lower part of right lung, especially at the margins, and for a space of three or four inches, is in a state of pneumonic consolidation—red hepatisation; a small part of it has advanced to the stage of grey hepatisation. On the anterior surface there is an abscess about the size of a filbert, apparently arising from a previous broncho-pneumonia. Upper part of lung fairly healthy.

Left Lung—Non-adherent; anterior surface healthy; posteriorly hypostatic congestion; apex on section appears acutely congested—crepitant; on pressure, exudes a large amount of frothy serum.

Heart—Weighs 330 grammes; substance apparently healthy, also valves, except aortic, which appears to be slightly incompetent. The arch of the aorta is dilated and lengthened so as to form a large fusiform aneurism, involving, chiefly, the transverse portion of the arch.

The innominate artery is dilated throughout its whole length so as to form an independent aneurism which sits upon that formed by the arch. The right subclavian and carotid are given off from this sac, but are of normal size and appearance from their origin. The recurrent laryngeal nerves were not observed in the dissection, but it seems probable that the right was in some way interfered with by the innominate portion of the aneurism.

Correspondence.

PARIS, 12th August, 1878.

To the Editor of the CANADA MEDICAL AND SURGICAL JOURNAL:

DEAR SIR,—The annual meeting of the British Medical Association, you are aware, has taken place this year at Bath, between the 6th and 9th days of this month. Bath is one of the quietest but pleasantest of towns and seems admirably suited for meetings of that kind. It is not so small but that ample and good accommodation can be afforded for a very considerable number of visitors, and yet not so large but that all shall be conveniently situated towards the rooms and places of meeting. In itself, too, the good old city has much to in terest a visitor, medical or otherwise—Its famous hot springs, in which old Romans bathed and forgot their ills, are still seen boiling and steaming as they rise above the ground—its really beautiful buildings which surround those springs and afford the invalid every desirable luxury in the way of bathing—its noble cathedral, where the Bishop of Bath and Wells opened the meeting by an eloquent sermon to the Association, and queer old houses of almost all possible dates, carrying you back to the time when Dr. Johnson and his faithful boy came to the baths for the good of their constitutions and to enjoy the society of the many beauties of that day who found it "the thing" to go there. Bath is famous for its antiquities, and chief amongst those of great interest are a large number of Roman altars and other remains in wonderful preservation, which have been found here in all directions, and have been preserved in the local Antiquarian Museum. Members of the Association and Medical visitors were made free of all the baths during the meeting, and I assure you the swimming baths, the cutidaria, and the draughts of the ærated water were fully appreciated by a great many.

The first evening was chiefly occupied by the President's address—Unfortunately, this year that official was a Dr. Fal-

coner, a local practitioner, and he had devoted nearly the whole of his paper to extolling the virtues of the healing spring in which it is incumbent upon every true Bathite to believe—it contained, however, nothing new or of any general interest. This was followed on the succeeding day by the address in Medicine, by Dr. Goodridge, Senior Physician of the Royal United Hospital, Bath. It will, I daresay, appear better in print than when read—the delivery having been painfully defective. It was, however, of excellent quality, and was listened to with much attention. The subject selected was that of the natural production and regulation of heat in the human body, and the pyrexial state. After a survey of the various theories of heat production, it was readily shown how little is really yet known of the true physiology of this subject, and a portion how much less of the various complex processes which result in the production of the pyrexial state. All physicians and workers in practical medicine were exhorted to give this subject all the attention its great importance deserves. Dr. Goodridge would look hopefully forward to the time when, possessed of a true fundamental knowledge of the laws governing heat production and discharge, we shall be able on true scientific grounds to remedy with a degree of certainty hitherto undreamt of, those pyrexial abnormalities which now constitute an often serious part of a great many of the very commonest maladies we are called upon to treat.

The same afternoon the sections opened and the medical one was the centre of attraction. It was presided over by Prof. Grainger Stewart, the popular Professor of Medicine of the Edinburgh University. His opening address was devoted to a discussion of certain recent observations by himself and others upon the pathology and relationships of certain of the forms of Bright's disease which have caused him to alter or modify many of his pre-conceived views as expressed in his work on that subject.

The daily programme had announced that a discussion upon obstruction of the bowels would be held and would be opened by Mr. Jonathan Hutchinson—It was this which had attracted

so many, and the room was crowded to excess—nor were we disappointed.

His paper was a most able and exhaustive, and at the same time, concise exposition of his views on most of the many very important questions which so often arise in connection with this serious trouble—it will well repay perusal. As regards diagnosis, he especially remarked upon the importance of bearing in mind the great similarity between an acute obstruction and a paralysis of the bowel caused by acute peritonitis, generally from perforation. Several instances of the mistake were alluded to. Of course, the practical importance of this point cannot be overrated. Then, with reference to operation in cases of impermeable obstruction where all other means have failed, Mr. Hutchinson, with characteristic caution, tells us that as in even apparently desperate cases he has seen spontaneous recovery take place, he would never consent to operate, except where the diagnosis could really be satisfactorily made out and where a constricting band was believed to be the cause. In cases of intus-susception he prefers trusting to nature. He strongly condemned the practice now followed by many of puncturing the abdomen to relieve from flatus, as he has seen severe peritonitis from the fœcal gaseous exudations from the little holes. In this he was opposed by Dr. Clifford Allbutt and others, as they claim that sometimes it really may help to cure, and that puncture is not dangerous except after the abdomen has been opened in gastrotomy. One member, whose practice lies in a lead-working district, stated that he had quite frequently met with forms of lead colic strongly resembling obstruction, and advocated the importance of excluding this possible origin of the symptoms. Dr. Broadbent urged the value of forming a diagnosis as early as possible of the exact *seat* of the obstruction, as then, from the patient's age and the other circumstances of the attack, a very certain opinion might often be formed of the real nature of the trouble. He also would examine every such case by the rectum, observing that, although no tumor may be felt, yet sometimes other information may be got, as, for instance, that the rectum is held open by a

tumor and not allowed naturally to collapse. Several other papers on the same subject and illustrating various points, were read by Drs. Kerr, J. Kerrit, and others, and the discussion was sustained and animated.

The Surgical section was presided over by Mr. Callender, of St. Bartholomew's, who, in his introductory remarks, dwelt chiefly upon the necessity of relief to pain in encouraging the healing of wounds. All that this eminent surgeon says on that point and every other with the same end in view is worth bearing in mind, because it is notorious that his results are said to be every way equal to those of Lister, and still he is the great unbeliever in antiseptics. The jealousy of the London surgeons towards Lister crops out every now and then. Callender was showing a splint with some modifications—"We, of London." he said, "have seen fit to import a surgeon from Edinburgh, whilst they of Edinburgh have actually imported this splint. We thought they considered that no good thing could come out of London." This was followed by the reading of papers on subjects connected with stone in the bladder—but not having attended, I am not able to give you any further particulars, but I did not learn that anything very novel concerning the operations for stone had been developed.

The following day, however, Surgery came to the front. The address had been entrusted to Mr. Wheelhouse, of Leeds, and he certainly did not fail to do full justice to the subject he had in hand. It was a lively and interesting review of the progress of Surgery during the 50 years of the writer's own experience. It was admirably delivered, and at times the reader's enthusiasm even carried him into eloquence. Its interest was greatly enhanced by the numerous examples introduced, in which he had himself been led by reasoning upon the now established principles of Surgery, to some of the most remarkable and satisfactory results. I may not take up much more of your space, but would refer your readers to the address itself. One or two instances, however, may be mentioned of the unusual procedures to which Mr. Wheelhouse has occasionally had resort. For example, he has recently had under his care a man

who, through a fall upon a scythe, had received a great gash in the back of the thigh, injuring also the sciatic nerve. The subsequent cicatrisation had completed the destruction of the nerve's function by pressure, and complete paralysis was the result. This paralysis had lasted several months, and the man came to the hospital for the purpose of having the limb amputated, so cumbersome had it become. This surgeon, however, determined to try the effect of exposing the ends of the divided nerve and joining them together. This was done, and the result was a perfectly good limb, with (after some months) free motion and sensation.

Antiseptic Surgery, of course came in for a full share of attention. Without entering into any theoretical discussion, Mr. Wheelhouse contented himself simply with stating his belief that by this means results could be attained which he had always failed to procure before its introduction, and which, indeed, he believed to be still impossible without it. Reference was also made to the great advantages which surgery has reaped from Dieulafoy's method of aspiration. After enumerating many of the maladies to which this improved means of removing fluid is applicable the writer made some further suggestions with reference to the extension of its use—especially to the emptying of large and putrid cavities in lungs and washing them out with some disinfectant fluid. (I have since been informed that this has already been done by some German surgeons.)—G. R.

Reviews and Notices of Books.

Transactions of the Medical Association of Georgia. Twenty-ninth Annual Session, held at Atlanta, April 17th, 18th and 19th, 1878. 8vo, pp. 279. Atlanta, Georgia: James P. Harrison & Co., 1878.

This is simply what its title indicates, and contains much matter of interest. The order of arrangement is in the usual style; the body of the book, which consists of exactly thirty-two pages, being taken up with table of contents, index to authors, list of officers, special committees and sections, after

which a daily record of the minutes of the meetings appears. The papers which have been selected for publication are next given in the appendix. As an introduction we have the President's address—this is followed by an oration in which the author, Dr. Burgess, touches upon the subject of unwise medical literature, of which there certainly appears to be a superabundance. Dr. Dostor next reports a case of amputation of the leg for necrosis of the tibia; the patient recovers, and, as the Dr. naively observes, he was made "apparently a happy man," after thirty-four years of suffering. This is succeeded by a report of cases from Dr. Walker, and also a paper on tubercular meningitis, by Dr. Grimes.

The next paper is on Yellow Fever, its history, causes, nature, pathology and treatment, by Dr. J. C. Le Hardy, of Savannah. This is a very important paper, and one that will attract much interest at the present time, as yellow fever is said to be epidemic in the South just now. The paper is based on the experience gained by the author during the epidemic of 1876, through which the city of Savannah passed during the latter part of the summer of that year. In the history of the epidemic, the author gives a description of the sanitary condition of many parts of the city, and points to the condition of over-crowding of buildings and defective drainage to which he attributes the aggravation of the disease when once developed. He says:—"The sections of the city principally inhabited by the working classes, (white and black) and extending on the eastern and western slopes of our bluff, were in their usual wretched sanitary condition. The streets narrow, running east and west; the houses wooden, small, decaying, built in tenements, with miserable ventilation; the yards small, with high plank fences, and filled up with offal of all sorts; their privy vaults badly closed; stables, pigeon and poultry houses, &c., all huddled together—Here was a picture to meet the eye on every side,—such a combination was quite sufficient to produce filth diseases; but it had existed for years, and although it was not in my judgment, an efficient cause for yellow fever, yet during an epidemic it could aggrvate its ravages." It has been

said that cleanliness is next to Godliness, for in verity it consists in our duty towards our neighbour and ourselves. We fear that Savannah is not the only city on this continent afflicted with squalor and neglect of sanitary precautions in the construction of buildings and their appurtenances. We have often in our own city viewed with anxiety and regret the system of over-crowding of buildings, and we may observe that during the two past epidemics of cholera that afflicted our city, although the disease was very generally distributed, yet it proved most fatal in localities where sanitary precautions had been neglected. Such, we imagine, is the experience of all observers not only in reference to yellow fever, but also of every plague with which the human family has been afflicted since the time of Moses. Dr. Woodhull, U. S. Army, who wrote an official account of the causes of the epidemic of yellow fever at Savannah in 1876, and which is published in the number for July, 1877, American Journal of the Medical Sciences, remarks:—"From the data which I have been able to collect, I think it is clear: First, that there is no evidence of importation of the yellow fever poison in this epidemic; Second, that if it was imported, no system of quarantine could have guarded against it; Third, that the spread and virulence of the epidemic were closely connected with air and soil pollution, whether this pollution be considered as a sufficient explanation of the origin of the disease or not." *

Le Hardy, in his paper, is inclined to the belief that so far as Savannah is concerned, the yellow fever germ can originate without importation. Although this question is still debatable, as professional opinion is by no means pronounced on the subject, we observe that the author, while admitting that a lack of sanitary precautions will aggravate the disease, and tend to its spread, he does not regard it as a factor of the disease. On this point, he remarks: "Had filth, and its resulting gases and pollution been capable of producing yellow fever once—its presence being ever acting and increasing, its effects should be

* Am. Journal of Med. Sciences, vol. 74, p. 53.

constant, and we would have yellow fever recurring here every summer, under the influence of our solar heat, which varies very little from year to year." Such not being the case however, the author infers that some other cause must be looked for. Such cause he regards as miasmatic, due to a mild winter succeeded by long-continued oppressive heat, with much rainfall, and consequently a large area of stagnant water, wet soil, which would give rise to noxious emanations or miasms, called more recently *contagium vivum*. This paper throughout is most interesting, as in it the various destructive epidemics which occurred in 1817, 1820, 1854 and 1876 are compared. The author concludes this part of his essay with a clinical table which shows, as he observes, "as naught but figures can, the variations of the pulse, temperature, relapses, and influence of quinine treatment, all of which sustain me in classifying yellow fever as a malarial disease."

Dr. James B. Baird gives an excellent paper on neuralgia, and its modern therapeusis. The author's conclusions as to cause of these affections is that, while admitting the possibility of their being variable, that in this country at least, the most frequent cause is malaria. The malarial origin of some cases of neuralgia would seem to be undeniable, but the most severe, constant, and unrelievable cases of neuralgia which we have ever witnessed, were due to pressure directly on the nerves by cancerous growths. The next paper is a report of one hundred and thirty operations for strabismus, from the pen of Dr. A. W. Calhoun.

Dr. V. H. Taliaferro, professor of obstetrics in the Atlanta Medical College, gives a paper on "the application of pressure in diseases of the uterus,"—this is followed by a paper on the use of uterine tents; the author, Dr. Goldsmith, proposes the pith of the dried corn stalk as a uterine tent. There are two reports on Surgery, the one by Dr. A. A. Smith, for the third congressional district—the other for the fifth congressional district, by Dr. J. T. Johnson. These are followed by a paper on the soft palate, from the pen of Dr. W. A. Love. Dr. Leitner suggests tar as a means of rendering solid bandages,

and as a substitute for starch, glue, dextrine, &c. The work is concluded with a report of an obstinate case of hiccough, a report on necrology, the constitution and by-laws of the association and the roll of members. Altogether, this is a very creditable production, and the Secretary, Dr. Baird, to whom we presume we are indebted for its publication, is to be congratulated for its respectable appearance.

The Throat and its Diseases. With one hundred typical illustrations in colour and fifty wood engravings designed and executed by the author. By LENNOX BROWNE, F. R. C. S., Edin.; Senior Surgeon to the Central London Throat and Ear Hospital. 8vo, pp. 351. London: BALLIERE, TINDELL & COX, 1878.

The author in his preface states that this book, the result of eleven years of work devoted to diseases of the throat, is offered as a practical guide to the diagnosis and treatment of those affections. He does not enter into pathological questions, but confines his remarks to whatever can aid the busy practitioner in carrying through, with the hope of success, the treatment of affections of the throat. So that questions of "purely pathological interest" are not discussed in these pages.

The attention of the reader is in the main directed to diseases of the throat which have been brought out more prominently since the introduction of the use of the laryngeal mirror. By the use of the Laryngoscope the observer has the means of making out with accuracy many special conditions of the larynx and trachea, by actually seeing with his eye these parts, which otherwise would be invisible during life. Thus with this powerful auxiliary he has these cavities laid open to his view, and it alone requires careful observation, with an intelligence equal to knowing what is observed, to enable the physician to form an accurate diagnosis and to predict results, which will surely follow, although no indications of such events may be present. Thus, for instance, a man may be the subject of thoracic aneurism encroaching on

the trachea, or probably almost completely blocking up one of the bifurcations of the trachea; the symptoms may be obscure —not sufficient at least to enable the practitioner to positively pronounce the presence of such a fatal malady, but the laryngoscope would in all likelihood aid him in making out the pressure or obstruction, and its most probable cause.

The text of this work is divided into seventeen chapters; the first three are taken up with a description of the laryngoscope and how to use it; the anatomy of the larynx is next dealt with, after which the laryngoscopic and rhynoscopic images are described— these are accompanied by several excellent outline engravings on wood. Chapters four and five are devoted to the semeiology and therapeutics of throat diseases, after which the diseases of the pharynx and fauces, the uvula and tonsils are discussed in chapters six and seven. Catarrh, naso-pharyngeal and posterior nasal, has a chapter devoted to itself. Diphtheria is the next subject taken up in chapter nine. On the question of general treatment, the author is not very pronounced. He remarks that, "Many general remedies have been suggested, and some have been vaunted as specifics, but the most rational and satifactory method seems to be that of treating symptoms as they arise." The author believes that, "locally very much may be done"; as long as the disease is confined to the pharynx he believes that the spray or brush may be of great service. The author does not enter into the question of tracheotomy, although he remarks that if it does not save the life of the patient, it certainly lessens the agony of death. We certainly think, that in view of the marked success of the operation in this very fatal malady, where the larynx is implicated, that the neglect to perform the operation is to be condemned, and we are disappointed to find in a work ostensibly devoted to the practical consideration of this subject, that it is dismissed in a paragraph of some six lines. This work is offered as a practical guide to the diagnosis and treatment of diseases of the throat, but it would appear that the author has not fully made up his mind, at least on this most important point of treatment, and the sooner he does so the better. We

do not believe in half measures in surgery. In surgery, as in war, action to be successful must be prompt, decisive and energetic, with a full knowledge of the topography of the country, and a careful attention to the rules of strategy. It must not be supposed, however, that, because there is this want of decision in recommending the operation of tracheotomy in diphtheritic laryngitis, that there is the same lack of practical instruction throughout the volume. There are a few points in which a decided opinion might be advantageously given, but we presume the author has not acquired such an amount of experience as to give him that necessary self-reliance which alone is looked for in the practical man. We shall hope to see a decided improvement in this and many other respects in a second edition of this work. Meanwhile, we may remark that there is much instruction to be gained from these pages, and the coloured lithographs are very beautifully executed and very truthful.

Anatomy—Descriptive and Surgical. By HENRY GRAY, F. R. S., with five hundred and twenty-two engravings on wood, with an introduction on general anatomy and development. By T. HOLMES, M. A., Cantab. A new American from the eighth and enlarged English edition, to which is added Landmarks, Medical and Surgical. By LUTHER HOLDEN, F.R.C.S. Imp. 8vo, pp. 983. Philadelphia: HENRY C. LEA, 1878.

It is scarcely necessary to draw attention to this well-known work, except to announce a new American from the eighth and enlarged English edition. This edition has been passed through the press by Dr. Richard J. Dunglison, and from the fact that the work had received three revisions at the hands of the English editor, Mr. Timothy Holmes, since the issue of the previous American re-print, no further additions were deemed necessary. The publisher has enhanced the value of this book by adding to it at the end of the volume Holden's Landmarks, Medical and Surgical; this has been an addition of some 45

pages of reading matter. Gray's Anatomy has been a favourite with students and practitioners for many years, and this edition has lost none of its attractiveness. It is the same valuable and reliable guide brought down to the anatomical knowledge of the day.

Extracts from British and Foreign Journals.

Unless otherwise stated the translations are made specially for this Journal.

The Treatment of Phagedænic Ulcers—By Dr. G. E. Weisfolg, *Virch. Archives*, Vol. LXVI, page 311.—Among the many therapeutical problems presented by the various manifestations of syphilis, the treatment of phagedænic ulcers is, perhaps, the most difficult.

No plan of treatment hitherto recommended by the best authorities suffices to alleviate, much less to arrest, the pain which these ulcers give rise to.

The desire to afford relief in this terrible disease, has led to the use of an infinite variety of local remedies. One author has even extolled the use of the actual cautery.* As an offset to this truly barbarous surgical practice, I venture to publish the result of treatment in nine cases. The method to be described was so successful, that I think it deserves to take precedence of all others.

No matter how intense the pain occasioned by a phagedænic ulcer may be, it ceases immediately when the ulcer is exposed to the action of an electro-magnetic bath.

If the sore is not so situated that it can be immersed in the water, the faradization may be applied to the nerves supplying this part; the effect, though not so strikingly beneficial, still suffices to render the condition of the patient comparatively comfortable.

The faradaic bath may usually be applied as follows: The sore is to be immersed in a basin of warm water, to the bottom

* Morrison. Fiset "On the local treatment of Venereal Ulcers," in the *New York Recorder*, Oct. 15, 1874.

of which one electrode is connected. The battery being so arranged as to give a very weak current, the patient applies one finger to the sponge of the other electrode; two or more fingers may be placed upon the sponge, if the patient does not find the application too strong to be borne with comfort.

Faradization of the nerves leading to the wound may be conducted in a similar manner; the parts in the vicinity of the sore being stroked with the sponge of one electrode, whilst one or more fingers are placed upon the other.

Patients very soon learn to manipulate in such a way as to avoid painful muscular contractions in the neighbourhood of the ulcer, and can then be trusted to make subsequent applications for themselves; in the intervals the sore may be dressed with oiled lint. The pain at first soon recurs after each faradization, and for a few days the patient will frequently have recourse to the use of the battery; but the period of relief gradually becomes longer after each application, and at the end of eight or ten days the sore is not more painful than an ordinary non-specific ulcer.

In the meantime the appearance of the ulcer has not undergone any corresponding improvement, its base still being covered with adherent sloughs, its margins raised and occupied by a brawny infiltration, although the excessive sensibility has entirely disappeared. At this stage there are many remedies which will act beneficially, but of these the nitrate of mercury deserves the preference. It may be used in the form of an ointment, eight grains to the ounce. At first this application causes a slight smarting, but under its influence the ulcer soon cleans rapidly, its raised edges sink, and the healing process makes rapid progress, so that in from fifteen to twenty days the cure is completed. Treated in this way a phagedænic ulcer as large as a twenty-dollar gold-piece will heal in about a month. A phagedænic ulcer is more difficult to treat when a patient is at the same time suffering from periosteal pains, for in these cases the relief afforded by the faradaic current is not so complete. Under these circumstances injections of the nitrate of mercury are extremely

serviceable. They are less harmful than injections of the perchloride of mercury, do not cause abscesses, and supply the system with a much larger quantity of soluble mercury, without causing salivation, than can be done in any other way. For the relief of periosteal pains the subcutaneous injections of nitrate of mercury do not require to be made more often than once in fourteen days. They will usually effect a cure in about two months.

The formula for injection is as follows:

℞ Hydrarg: oxid: nit: crystall . . . gr. viii.
Aq: destill: . . . . . fl 3 xiv.
Dispens solutio limpida.

On the abortive treatment of Syphilis—By Dr. GUSTAVE E. WEISFOLG, from Virchow's Archives, Vol. LXIX, 1, p. 143.—The author, who appears to think the abortive treatment of syphilis is quite within the bounds of possibility, says that whoever believes at all in the efficacy of medicines must also admit that we have only to find a suitable remedy or method of treatment in order to prevent the first local manifestation from passing on to a general or constitutional affection. In support of this proposition, he points to the fact that there is always a considerable interval between the appearance of the local disease and the symptoms denoting general infection, and maintains that during the interval it should be possible to anticipate and prevent the process of general infection. One of the chief difficulties to be overcome is to form a correct estimate of the actual value of any course of treatment pursued with this object in view, since several years must necessarily elapse before any decisive results can be attained.

Certain it is, however, that those remedies which are known to have a curative effect when given internally for constitutional syphilis, do *not*, when given in the same way, possess the power of preventing general infection. This indicates at least one direction in which there is nothing to hope for from the abortive plan of treating syphilis. The author adheres to the generally

accepted doctrine that infection takes place through the medium of the lymphatics—though doubts as to the correctness of this view have recently been raised—and lays great stress on the experiments of Broca. The latter attempted to prevent general infection when there was a syphilitic sore on the penis and swellings of the inguinal glands, by incising and injecting them with iodine, thus setting up an acute inflammation of the glands in question.

He was led to this from the common observation that sores followed by suppurating bubo seldom give rise to constitutional infection, and he hoped to attain the same result by imitating nature. Although the author finds this plan of treatment useless as an abortive measure, he maintains that the principle upon which it is founded is correct, only it is essential to be beforehand with the syphilitic poison and grapple with it before the general lymphatic system is impregnated by it. He, in fact, attains the object which Broca had in view, but by a different method of treatment. The author directs attention to the curious fact, that the watery solution of nitrate of mercury mentioned in the previous article, may be injected under the skin of a healthy part without even setting up purulent inflammation, but that if the part be already inflamed, such an injection invariably produces an abscess, and he has utilized this peculiarity of action in such a way as to prevent the spread of venereal poison from a primary sore through the inguinal glands to the system. In any doubtful case he injects some of the solution subcutaneously, between the sore and first convolution of inguinal glands likely to be infected by it. If these glands, or the lymphatics leading to them, are not already in an inflamed condition, no abscess is formed, and if the injection is repeated every ten or twelve days till the primary sore is healed and the induration has disappeared, constitutional syphilis never ensues.

In those cases in which, on account of already existing inflammation, abscesses formed, the patients still remain free from syphilis. The author has practised this abortive treatment, during the last five years, in thirty-two cases of indurated and

mixed chancres. Of these, abscesses formed on both sides in fourteen cases, on only one side in six cases. The final result was followed up in twenty-eight of these cases, all of which remained free from syphilis, as did also their children.

This method of treatment is based, according to the author, upon the law that "mercury exercises its specific action as an antisyphilitic most effectually when it comes in direct contact with the chancre poison in the tissues primarily affected;" and this occurs when those tissues are impregnated with mercury, which contain the lymph vessels connecting the chancre with the general lymphatic system. The author concludes the articles by earnestly inviting the profession to give the proposed method a fair trial.

Paracentesis Abdominis by gradual drainage with a single fine Cannula.—By Reginald Southey, M.D. Oxon., F.R.C.P.—The unusual relief of the distressing symptom of anasarca which I found follow the employment of fine drainage-cannulas encouraged me to employ nearly the same apparatus in the treatment of ascites; and now that my experience has extended over a fair number of cases, enough to satisfy me that this mode of proceeding is attended by no extra risks, I venture to lay it as briefly as I can before the profession.

Apparatus.—The trocar and bulb-headed cannula required for the purpose of gradually drawing off ascitic fluid, by the help of a capillary tube, differs very little from that employed by me for anasarcous limbs. Both instruments are equally fine. The calibre is the No. 1 exploring trocar of the surgeon. One long needle-trocar, measuring an inch and three quarters in length from hilt to point, has appeared long enough for all the cases hitherto tapped by me. Three or four cannulas of different lengths, adapted to the thickness from fat and œdema of different abdominal walls, are required. The cannulas may be perforated with as many as six or eight side holes—the more the better, so that their strength is not interfered with The mouth end of each cannula should be armed with a small silver

plate or shield, to obviate any risk of the cannula head sinking beneath the surface of the skin when this is highly œdematous; and, simple as it may seem to contrive an armature which may thus secure and help to maintain the cannula in position, I may say that I have not yet quite mastered the matter. As to the length of the shield or cross-beam, one inch appears ample —i.e., half an inch each side of the cannula. The shield may be round or square with rounded edges, or, as I have had mine made, as elongated plates, one inch long by a quarter of an inch broad, and about a thirty-second of an inch thick. Whether the cannula was best fixed immovably to the shield or otherwise, was the next point to decide. It was found that the immovably fixed shield, held fast by two strips of plaster, by dint of the movements of the abdominal muscles in respiration either worked away from its plaster moorings or tended to work out the cannula end from the peritoneal cavity. Messrs. Ferguson therefore contrived a shield for me which held, but allowed the cannula a limited play in every direction, and in practice this has worked admirably. One instrument I had made for those particular cases in which, although the ascites has been considerable, and its relief urgent, the presence either of cancerous tumours in the abdominal cavity or an enlarged liver has rendered a hard and pointed body, like the cannula end, abutting on the peritoneal aspect of the abdominal parietes, undesirable; for as the fluid drains away the abdomen collapses and the parietes sink, and large, soft-surfaced masses, moved up and down by the descent of the diaphragm, might be torn and fretted against the cannula, and made to bleed. To meet this emergency a cannula which merely traversed a shield-plate, and was not fixed at all, appeared best adapted. If anything pushed it from within, out it could come.

Mode of operation.—Trivial as this is, it appears to me from experience that there is a right and a wrong way of introducing the cannula. Instead of driving the trocar in quite perpendicularly, it is best to slope the point downwards somewhat towards the pubes, and to avoid making the cannula point upwards towards the sternum. The wound made is so slight

that one can afford to make it almost anywhere, but from prejudice I should select the raphe or mesial line below the umbilicus, and about midway between this and the pubes. Before operating, I always insist upon my house-physician ascertaining that the bladder is empty.

I append one case of ascites from cirrhosis thus treated, but for the last year I have had every case of ascites—hepatic, carcinomatous, cardiac, renal—which has fallen under my care at St. Bartholomew's, and required tapping, tapped in this way; and the results have proved sufficiently satisfactory for me to recommend it highly. I have had no instance of peritonitis thus provoked. The paracentesis, instead of being a formidable operation, is nothing more than the prick of a needle. The ascitic fluid is quite sufficiently evacuated; it is also removed gradually, the near average rate of its removal being from ten to twenty ounces per hour. The pressure upon the diaphragm, the intestines, the intra-abdominal vessels, and the walls of the abdomen, is slowly but steadily relieved. There is no syncope provoked and no necessity for swathing the patient with bandages, a circumstance in the old method of performing paracentesis by large trocars which in hot weather added greatly to the patient's distress. Both by doctors and patients this mode of performing paracentesis will, I think, be hailed as an advance in clinical medicine.

William H——, aged fifty-eight, shoemaker, was admitted into Luke ward on March 12th, 1878, for extensive ascites and anasarca of his legs. The abdomen was very tense; dyspnœa considerable; some cyanosis. Urine scanty, high coloured, of high specific gravity, containing no albumen. Heart's apex beat two inches outside left nipple line; systolic murmur loudest at apex and over ventricle. Pulse very irregular. Breathing shallow; some œdema of both bases posteriorly, with bronchial râles. Limit of liver and spleen not to be ascertained by reason of the ascites. Up to ten years ago he had had good health; then had first attack of rheumatic gout. Was admitted into the hospital in June, 1876, for dropsy of legs and abdomen, and

was discharged well, and again for a recurrence of dropsy about Christmas, 1876.

The man's physiognomy, his habits of life, and the manner in which his present dropsy had commenced, the abdomen swelling before the legs, led me, notwithstanding the cardiac murmur, manifest dilatation of both ventricles, and irregular heart's action, to attribute his dropsy principally to cirrhosis of the liver and an obstructed portal circulation.

Paracentesis abdominis with my fine trocar and fixed shield was performed at 6 p.m. on March 13th. In twenty-one hours, 11,400 cc. of clear, straw-coloured serum had been evacuated by the capillary tube. The specific gravity of the ascitic fluid wee 1020; reaction alkaline. The amount of fibrin as well as of albumen in it very considerable; the former manifesting its presence by spontaneous formation of a slight coagulum in the fluid. The tube was removed during the night of the 14th-15th, the fluid having ceased to flow, and the abdomen being quite flaccid.

March 18th.—Condition singularly improved: appetite good; functions normal; urine flow abundant, clear, amber-coloured, alkaline, sp. gr. 1024, no albumen; breathing quite tranquil; sleeps well; heart's apex still beats two inches outside left nipple perpendicular between fourth and fifth ribs; action still irregular; first sound loud and ringing, but attended by no murmur; liver manifestly contracted, small, and cirrhotic.

Towards end of April the abdomen had again filled considerably, and the legs began to be œdematous once more, but his appetite and general health were otherwise fairly good.

May 5th.—The distension of abdomen and interference with the descent of the diaphragm again threatened death by dyspnœa. Breathing shallow and hurried. The auscultatory signs rendered presence of some fluid in right pleura probable, as also œdema of lower part of left lung. Paracentesis again performed as before. The tube remained in thirty-three hours, during which time twenty-one pints of clear fluid were drawn off; it ceased flowing on the morning of the 7th of May.

On May 9th he was so perfectly comfortable and feeling so

well that there was no object in keeping him longer in bed. On May 11th he was discharged at his own request.

Remarks.—This patient's case was doubtless a highly favourable one for relief by tapping. The best prognostic feature in any case of hepatic dropsy is a stomach that still maintains digestive powers. In treatment, however, this mode of performing paracentesis leaves nothing to be desired; the *tuto*, *cito*, *et jucunde* are sufficiently fulfilled by it.—*The Lancet.*

Causes and Cure of Insomnia.—Dr. Sawyer observes that insomnia is one of the commonest complications and consequences of a vast variety of morbid states. Pyrexia, physical pain, coughing, dyspnœa are all conditions which prevent or shorten sleep. Such insomnia may, for the most part, be controlled either by the exhibition of remedies which directly promote sleep (hypnotics), or by the adoption of measures which combat the cause of the insomnia, by reducing fever, by palliating pain, by checking cough, or by relieving cardiac disturbance. But there is another form of sleplessness, which may be called *insomnia per se*, or simple inability to sleep, for which it is difficult to find an adequate cause, but which seems to depend upon inability on the part of the brain and nervous system generally to adapt themselves to the conditions that are requisite for sleep. It is more common in the upper middle class than amongst others, and especially in those of a high mental endowment. There are, he thinks, three varieties of this form, psychic, toxic and senile. In natural sleep the brain is anæmic and inactive, hence any cause that prevents due repose of a sufficient number of the cerebral cells, or sustains cerebral hyperæmia, will prevent sleep. Examples of psychic insomnia may be found where severe and sudden emotional shocks, or prolonged mental strain affect men of nervous temperament. The patient is dull and listless, the eyes wanting in vivacity, complexion sallow, head-ache is present with occasional giddiness and disturbance of the senses, twitching of the muscles. In toxic anæmia the cause of the sleeplessness acts primarily upon the vessels of the brain, giving rise to some degree of ar-

terial hyperæmia. The external poisons thus acting are tobacco, alcohol, tea and coffee, the internal are certain effete products of tissue metamorphosis which accumulate in the bodies of gouty patients or of those whose kidneys act deficiently. The insomnia of these cases he believes to be due to the maintenance of a state of high tension in the cerebral arteries. In the senile form of insomnia the sleeplessness is due to senile degeneration of the smaller cerebral arteries, which are physically unable to adapt themselves to the condition of relative arterial anæmia, which is requisite for healthy sleep. In the treatment of insomnia, soporifics must often be used. Of these, the chief are chloral, opium, morphia, the bromides, Indian hemp, alcohol, and affusion with cold water. In psychic insomnia, Dr. Sawyer prefers chloral. Change of air and scene and rest are essential. In the well nourished, bromide of potassium is the best hypnotic, in 30-60 grain doses, combined with tincture of ergot, or of digitalis. Over-worked men are often anæmic, and require iron, with a little alcohol, at night. Exercise may generally be enjoined. In gouty lithiasis, with a pulse of high tension, he has confidence in the curative effects of colchicum, supplemented by the use of dilute saline purgatives, such as Pullna, Friedrichshall, Hunyadi Janos, or Rakoczy waters. Senile insomnia is very obstinate, but perhaps in the bromides, with full doses of hops or henbane, we have the best and least harmful means for its relief.—*Lancet and Hospital Gazette, N. Y.*

New method of compression of the iliac artery in amputation at the hip-joint.—Mr. Richard Davy, of the Westminster Hospital, remarks that in all severe operations, one of the first considerations of the surgeon is to anticipate shock, and to prevent the loss of blood. He accordingly permits a patient to have a glass of wine or brandy and water about an hour before the operation, with a result that partakes more of a sedative than of a stimulant character; apprehension is assured; cardiac tone is gained; fitness for the ordeal is exhibited. The American sur-

geons devised pressure on the aorta for hæmostatic ends during amputations high up towards the pelvis. Lister arranged a horse-shoe clamp and screw-pad for compressing the aorta above the umbilicus. Dr. Davy saw this mechanism employed in Syme's operation on gluteal aneurism in 1860, and in 1874 he drew Mr. Holmes' attention, who was then lecturing in the College of Surgeons, to the possibility of controlling the aorta, common iliacs, and internal iliacs, by pressure through the rectal wall, which he considers a less serious procedure than compression of the aorta through the abdominal wall. Last January a favorable case presented itself for testing the value of the suggestion in a boy suffering from morbus coxæ, and requiring amputation at the hip-joint. In the performance of the operation the right leg and thigh were emptied partially of blood by Esmarch's bandage, chloroform was administered, and about one ounce of sweet oil was injected into the empty rectum. A straight lever of wood (run smooth and round out of a lathe) was introduced *per rectum;* the small end was applied over the right common iliac artery between the bodies of the lumbar vertebræ and psoas magnus muscle; the projecting part of the lever ran nearly parallel to the left thigh. Mr. Bond readily compressed the common iliac artery by elevating the projecting arm of the lever, the perinæal tissues acting as a fulcrum. As the lever was raised or depressed, so did the right femoral artery cease or continue to pulsate. The left femoral was undisturbed, beating with regularity throughout. A long square anterior flap was made by transfixion over the joint, the muscles and capsule were divided, and a short posterior cut severed the limb. The arteries were tied, sutures inserted, and the boy placed in bed. About a wine-glassfull of blood was lost. The boy recovered, with the exception of one or two small sinuses. —*Brit. Med. Jour. & Hospital Gazette, N. Y.*

Enterotomy.—Dr, Von Langenbeck, at the late Congress of the Society of German Surgeons, showed a patient on whom he had performed enterotomy last May, and who wore an India-rubber bladder as an obturator to the artificial anus. He

called attention to the importance of providing a sufficient closure for the new opening. In a case of colotomy, performed on a child for absence of rectum, and which was in other respects successful, death had occurred from prolapse of the intestine, in consequence of the want of a proper obturator.

Dr. Trendelenburg (Rostock) had performed enterotomy three times, and considered it much less dangerous than colotomy, in consequence of the injury to the soft parts being less. For the closure of the fistula, remaining after gastrotomy, he recommended a drainage-tube provided with a stop-cock, which could be fixed securely in a perpendicular direction by means of a ring of cork.

Dr. Czerny (Heidelberg) thought that, independently of the connection in size between the prolapsed portion of bowel and the opening, the prolapse was always absent, or very small, when there was adhesion of the serous membrane above the opening.

Dr. Von Langenbeck said, in order to prevent misunderstanding, that in the case of the child to which he had referred he had not performed Amussat's operation, but had opened the flexure of the colon. He had made the opening very small, and he believed that the prolapse was the result of invagination. A means of preventing prolapse, not attended with danger, but certain in action, was the use of a plug to be inserted in the intestine. One of his patients had for some years used this plan with success.—*Lond. Med. Record & Hosp. Gazette, N. Y.*

Treatment of Ulcers of the Leg.—Dr. Becker advises a new method of treating ulcers of the leg. First, the patient must remain in bed twenty-four hours, so that the usual œdema which accompanies ulceration may be got rid of. During this period the limb should be wrapped in lint soaked in a solution of carbolic acid. The leg should then be well dried and the bandage applied—this bandage must be of the thinnest possible linen and put on a hot plate and spread with heated emplastrum adhæs. (Emp. Resinæ). . This plaster goes easily through the thin linen bandage, so that both sides

are equally covered with the mass. The bandage is then applied to the leg from below up, in strips, which must go completely round the leg, and the upper strip overlap the under by a third of its breadth. It is important that the strips be evenly applied so that there may be no interference with the circulation. After the application of the bandage, the patient must remain some hours in bed. The bandage is taken off after four weeks, and during the night succeeding, the limb must be enveloped in lint soaked in a solution of carbolic acid, and the next morning the bandage should be re-applied in the same way. If there is a fœtid discharge which escapes from under the bandage, Dr. Becker advises over the emp. adhæs. should be applied one of Lister's gauze bandages impregnated with carbolic acid, and an ordinary linen roller applied over all—this last bandage should be moistened every two or three days with a solution of carbolic acid in spirits of wine (20-100). Dr. Becker claims that this method of treating ulcers is superior to Lister's or Reverdin's.—(*Berlin, Klin, Wochschr.* xiv, 1877), quoted in *Schmidt's Yahrbucher*, 1878.

[This method of strapping is very similar to that advised by Mr. Baynton, years ago. Dr. Becker, however, evidently is unacquainted with Baynton's strapping.]

Treatment of Psoriasis.—Prof. Thiry (*Presse Méd.*, xxiv, 1877), employed jaborandi in the treatment of two cases of inveterate psoriasis in young persons. In one case of general psoriasis the result was very favorable,—in the other, psoriasis guttata, the cure was not complete. The first case was cured in eight weeks. He gave the jaborandi in the form of infusion, in doses of ʒi—ʒii daily. (Quoted in *Schmidt's Yahrbucher*, 1878.)

Psoriasis.—Wutzdorff, of Berlin, holds the opinion that psoriasis is never acquired except in those in whom the tendency is congenital, and whose skin is irritated from various mechanical, chemical and thermic causes. In those that have the tendency, the psoriasis always appears in some part of the

skin that is irritated, as the buttocks in riders, in shoemakers on inner side of the left knee, and the gluteal region in tailors.—(Quoted in *Schmidt's Yahrbucher*, No. 5, 1878.)

Psoriasis Vulgaris.—Dr. E. Poor (*Prager Vierteljahrsschrr*) declares that psoriasis vulgaris is a constitutional affection and is the manifestation in the skin of malarial fever. He calls it "malarial psoriasis," and treats it with quinine, arsenic, carbolic acid, &c., internally. In 68 per cent. of the cases the parents suffered from ague, and 31 per cent. from lichenous eruptions. In most of the cases examined (327) he found enlargement of the spleen.—(Quoted in *Centrallblatt f Med. Wissensch*, 1878.)

Erythema Nodosum (Œhme.)—Among 18 patients examined suffering from e. nodosnm, 17 were women and 1 was a male; their ages varied from 16 to 27 years, except one, who was 54. In 16 cases the eruption was distinctly accompanied by fever. The prodromal fever usually lasts from two to eight days, and seems disproportionate to the local eruption. As complications we find pain and swelling in the joints, as in rheumatism ac., but endocarditis is never seen. * * * * While e. nodosum is harmless in healthy persons with no hereditary taint, it must always be a subject of alarm in those whose families are phthisical and who themselves are badly nourished and anæmic individuals.—[*Dresdener jahr. f. Nat. Heil.*, 1877. Quoted in *Centrallblatt f. Med. Wissensch.*)

Dr. Svetlin (Centrallblatt f. Med. Wissenschr, April, '78), has been experimenting with guinea pigs on the efficacy of atropine in epilepsy. He found that he could control the reflex spasm of epilepsy (which had been induced in guinea pigs after the usual manner) by small doses of atropine with the greatest ease; the dose he used was 0,001,—0,902. He has also had good results with his own patients suffering from epilepsy; he uses it in very small and not increasing doses 0,001 gramme, in the form of pill.

Jaborandi.—Dr. O. KAHLER (*Prager Med. Wissechr.* 1877) recommends jaborandi in cases of diabetes, where the digestion is in good condition. It rapidly reduces the amount of urine. In acute bronchitis and chronic dry catarrh he has found it of service, and also in parotitis accompanying severe infectious diseases. He advises its use in mumps, rheumatic affections, neuralgia, nephritis, uræmia, &c., and in chronic metallic poisoning. Kahler uses jaborandi in the shape of infusion, and says its use is contra indicated by a weak heart.

Athetosis.—Dr. OULMONT (*Etude clinique sur l'Athétose* par le Dr. P. Oulmont, Paris, 1878), during his residence in the Salpêtrière under M. Charcot, had the opportunity of studying several patients afflicted with athetosis, an affection little known as yet, and of which the name even was until lately almost ignored in France. The history of athetosis is of very recent date · it was first named in 1871 by Hammond of New York, who devoted a chapter to it in his treatise *On Diseases of the Nervous System.* Some years before Charcot (1853) and Heisse (1860) had described phenomena analogous to those defined by Hammond; and, since the labours of the latter, several other observers have spoken of athetosis, chiefly in America and in England.

Athetosis (*athetos*, without fixed position) is characterized, according to Hammond, by "the impossibility which the patients find of keeping their fingers and toes in any desired position, and by the continual movement of the same."

The name of athetosis, like that of chorea, says M. Oulmont, is a general appellation, comprising varieties which are very different in point of progress and symptomatology. Athetosis may be unilateral (hemi-athetosis) or double. M. Oulmont has studied both forms in a series of thirty-seven clinical observations, from which he has drawn the following conclusions:—

1. There are, in what is described under the name of athetosis, two entirely distinct forms which must be completely separated; unilateral or hemiathetosis, and double or general athetosis. 2. Hemiathetosis consists of slow, exaggerated, involuntary movements, limited to the foot and hand of one

side of the body, and now and then occupying the corresponding half of the face and neck. 3. To these movements are generally added transitory contractions or intermittent spasms, which are simple modifications of athetotic movements, a sort of intermediate stage between the mobility of athetosis and the rigidity of post hemiplegic contraction. They may attack all parts of the upper extremity, but in the lower extremity they rarely pass the instep. 4. The movements are involuntary, little modified by the will, and often exaggerated by it. They persist during rest, often even during sleep, at least to the degree of fixing the limb in an abnormal position. 5. Hemiathetosis appears nearly always on the paralyzed side during the course of motor hemiplegia. 6. It coincides, in the great majority of cases, with more or less complete hemianæsthesia of the same side. 7. The other symptoms which may accompany it, namely permanent contraction, rigidity, and atrophy, with laxity of the articular ligaments, do not depend on the athetosis, but on the hemiplegia itself. Articular relaxation in particular is specially marked. 8. Hemiathetosis resembles hemichorea; like it, it is the symptom of a cerebral lesion of some sort, without doubt in the neighbourhood of the lesion which produces hemichorea, that is to say, the fibres in front and outside of the sensory bundles at the lower part of the corona radiata (of Reil). In cases where motor or sensory hemiplegia, or both, are absent, it may be admitted that there is such a tendency to concentration, that it attacks the athetotic fasciculi at a place where the sensory and motor bundles, united at the lower part of the internal capsule, are already dissociated. 9. Hemiathetosis and hemichorea, very distinct varieties of posthemiplegic disorders, may be united by various forms of actual tremblings, transitional states in which the characters of both are blended. 10. Double athetosis presents the same clinical aspects as hemiathetosis, except that the movements exists on both sides of the body. The face seems to be attacked more constantly and more severely than in the unilateral form. 11. It is not accompanied by any disorder of movement or of sensibility. 12. Its nature is unknown; still it may be admitted that there is between it and hemiathetosis the same relation as there is between chorea and hemichorea. —*London Med. Record.*

CANADA

Medical and Surgical Journal.

MONTREAL, SEPTEMBER, 1878.

YELLOW FEVER.

This scourge still continues to infest southern cities, and it is surmised that it will continue until the frosts of winter have set in. It has apparently extended farther north on this occassion than during any previous epidemic. This is accounted for from the continued rain with an unusual hot term, and the disease appears to have been aggravated by the neglect of sanitary precautions such as efficient drainage and cleanliness. Dirt and neglect of sanitary means is not held to be sufficient to generate the fever, but there can be little doubt that during the prevalence of an epidemic it will greatly add to its virulence and fatality. We read of whole families being swept away in Grenada. This probably is somewhat exaggerated, as there appears to be a panic amongst the people and it is the fashion now a days, at least with some people, to deal with inflation even in our miseries. That the fever is bad enough and fatal enough is sufficiently evident by the report of Dr. Woodworth, of Washington, Surgeon-General to the U. S. Marine Hospital Service. The following abstract of that report we take from the *Boston Medical and Surgical Journal*:—

New Orleans—During the week ending 30th August, 1878, there were 1,204 cases of yellow fever in that city, of whom 333 died. Since the outbreak of the epidemic there have been 2,877 cases with 867 deaths. This gives an average of a little over 30 per cent.

Vicksburg.—It is estimated that there have been from the outbreak of the epidemic in this place 800 cases of yellow fever

with 185 deaths. This gives a percentage of over 23.

In Memphis the death rate has been high; during the week ending 30th August there were 721 cases of yellow fever, with a mortality of 241, yielding a percentage of 33.42.

The disease appears to be confined to the line of the Mississippi, although cases are reported in Cincinnati and Philadelphia. These were all imported cases from infected places south.

No reliable information or official reports obtained from Granada, Canton, Port Gibson, and Port Eads, La.

MARKS OF MURDEROUS VIOLENCE.

We observe by a recent telegram from Quebec that at the inquest held on the body of Joseph Guenette, found decapitated on the railway track at St Henry, a verdict of wilful murder has been rendered against some party or parties unknown. The circumstances are somewhat peculiar. Guenette was a perfectly sober man and was seen late in the evening of the night of the supposed accident. He had evidently been killed by a stab in the chest which had implicated the heart. The medical gentlemen who examined the body *post mortem* gave it as their opinion that life was extinct some time before his head was severed from his body by the wheels of the passing train, and that death was the result of a stab in the chest wall near the heart inflicted by some sharp instrument. The body subsequently had been placed on the track with the neck on one of the rails. This evidence was substantiated by the conductor, who examined the body as soon as the train was stopped. It was almost cold, somewhat rigid, and there was very little blood on the track. The matter is in the hands of the police.

A very similar case is reported in an English periodical where the body of a man supposed to be drowned was recovered from the Serpentine. The surgeon who gave evidence at the inquest testified that he found a bullet-wound on the left side of the chest which involved the heart and which he believed would have caused speedy death. It is not stated however

whether the signs of death by drowning were absent. Other evidence went to show that the deceased had shot himself while on the bridge and that his body fell into the river. These cases are instructive as they point to the necessity of careful and patient investigation, and by the exercise of reason the actual nature of the case can generally be arrived at with certainty. Murder, when perpetrated, can very rarely be so covered up as to obliterate all trace of the crime. And it is as well the public should be aware that the profession possesses sure and certain signs, unmistakeable, reasonable, and convincing, which will bring to light a hideous crime of this nature even though there may be no corroborative evidence, which, however, in the instances above referred to was not wanting.

THE BONES IN PERNICIOUS ANÆMIA.

We notice that reference is made in the London *Lancet* of August 2nd, to some observations published last autumn in the "Transactions of the Canada Medical Association," by Professor William Osler, M.D., of McGill University, in reference to the condition of the bones and marrow in Pernicious Anæmia, as well as to other remarks on the same subject, more recently published. The latter we have not seen, but the *Lancet* does not accredit the source from whence it has obtained the information. This is to be regretted, as it is due to the author, as well as to the readers of the *Lancet*, to give them the opportunity of seeing the entire article, and not a mere abstract of observations which are of practical importance, and which are attracting very general attention. Dr. Osler has devoted a large amount of time to these inquiries, and so far as he has gone his deductions are highly interesting and instructive, and reflect credit on his persevering industry.

IMPORTANT ANNOUNCEMENT.

The enterprising book publishing house of William Wood & Co., 27 Great Jones Street, New York, have undertaken a scheme of reproducing books of foreign authors at prices far below anything of the kind heretofore attempted. We can

illustrate the reproduction of Ziemssen's Cyclopædia of the Practice of Medicine, now near its completion, and we must state without hesitation that in our opinion the reading professional public owe a debt of gratitude to Messrs. Wood & Co. for having carried out so successfully this great enterprise.

A somewhat similar attempt on their part is about to be inaugurated, and we trust their laudable efforts will receive that recognition and support which they deserve. Indeed the profession is offered a library of books, which will be sold to subscribers only, at an annnual subscription of twelve dollars.

The proposal for the year 1879 is to issue twelve volumes. "Rest and pain," a course of lectures by John Hilton, F.R.S., and which, at the time of their delivery, attracted much attention. This valuable work is profusely illustrated with engravings on wood. "Diseases of the Intestines and Peritoneum," being articles published by Wardell, Bristowe, Begbie, Thos. B. Curling and Ransom. These papers are taken from Reynolds' System of Medicine, and will form a volume with numerous illustrations. A third edition of Ellis' "Practical Manual of the Diseases of Children," with formulary. Lawson Tait's work on diseases of women. "A Clinical treatise of Diseases of the Liver," by Dr. Fried. Theod. Frerichs, translated by Dr. Murchison. This work is worth all the money asked for the 12 volumes, it is the most valuable treatise ever written on this subject, and will be published, in this series, in three volumes. "Infant Feeding and its influence on life," by C. H. F. Routh, M.D., third edition. The remaining four volumes are not announced as Messrs. Wood desire to avail themselves of whatever may appear in the announcements of books to be published in 1879, which are usually made in October. We trust our readers will entertain the offer of the publishers and respond freely and promptly, as it is very important that all who intend to subscribe should do so without delay, so as to give the publishers some idea of how large an edition will be required.

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CANADA
MEDICAL & SURGICAL JOURNAL

OCTOBER, 1878.

Original Communications.

A DESCRIPTION OF THE CONJOINED TWINS, MARIE-ROSA DROUIN.

By D. C. MacCallum, M.D., M.R.C.S, Eng.

Professor of Midwifery and Diseases of Women and Children, McGill University.

This remarkable specimen of the fusion in part of the bodies of two female children was brought to Montreal for exhibition during the month of April, 1878. It was exceedingly difficult to make a thorough examination of the children, as the mother was strongly opposed to having them handled or touched. By frequent visits, and by obtaining the consent of the mother to see the children whilst she was washing and dressing them, I succeeded in making out, not only the most important points relating to their union, but also in obtaining an excellent drawing, by Hawksett, of the appearances which they present anteriorly and potseriorly. The specimen belongs to St. Hilaire's class of *Monstres Doubles;* Famille-*Sysomien*; Genres-*Psodyme*; to Playfair's division of Dicephalous Monsters.

The children lie in their mother's arms much as they are represented in the plate, the two upper separated portions being about in a line with each other, and each forming nearly a right angle with the single trunk. The one to the left of the observer, named *Marie*, resembles the mother, has a fairer complexion, is

more strongly developed and healthier looking than her sister *Rosa*, who is smaller, darker, more delicate-looking and resembles the father. They are both bright, lively and intelligent-looking children. The two bodies, from the heads as far as the abdomen, are well formed, perfectly developed, and in a state of good nutrition. The union between them commences at the lower part of the thorax of each, and from that part downwards they present the appearance of one female child; that is, there is but one abdomen with one navel, a genital fissure with the external organs of generation of the female, and two inferior extremities. The floating ribs are distinct in each, as is also the ensiform cartilage. The lateral halves of the abdomen and the inferior extremities correspond in size and development respectively to the body of the same side; and the same remark applies to the labia majora. The spinal columns are distinct and appear to meet at a pelvis common to both, although the fusion of the children commences at some distance above their junction. From near the extremity of each spine, a fissure extends downwards and inwards, meeting its fellow of the opposite side at the cleft between the buttocks near the anus, including a somewhat elevated soft fleshy mass, thicker below than above. At a central point between these fissures, at the distance of *two and a half inches* from the point where the vertebral columns meet, and *three and a half inches* from the anus there projects a rudimentary limb with a very movable attachment. This limb, which measures *five inches* in length, and is provided with a joint, tapers to a fine point, which is furnished with a distinct nail. It is very sensitive and contracts strongly when slightly irritated.

The respiratory movements are not synchronous, nor do the pulsations of the hearts correspond—Marie's heart beating at the time of examination 128 per minute; Rosa's, 133. The sensation of hunger is not always felt at the same time, as very frequently one child sleeps while the other is nursing. When one child cries and the other is tranquil, the abdomen on the side of the crying child contracts and expands, and the limb of that side is agitated, while the corresponding

parts of the opposite side are at rest. There is slight movement of the lateral half of the abdomen on the side of the quiet child, but this is evidently communicated. Precisely the same phenomena are observed when either child forces during a motion.

From these observations it would appear that the spinal, respiratory, circulatory and digestive systems of these children are quite distinct. They have each a separate diaphragm, and the abdominal muscles on each side of the mesial line, and the limb of that side are supplied with blood by the vessels and are under the control of the nervous system of the corresponding child. They have each a distinct stomach and an alimentary canal, which probably opens at a point close to the common anus. It would follow also that the accessory organs of the digestive system are distinct for each child.

The two fissures behind are evidently the original clefts between the buttocks of each child; one buttock remaining in its integrity, whilst the other in a rudimentary condition is fused with that of the opposite child, forming the soft fleshy mass from the upper part of which the rudimentary limb projects.

These children are the products of a second gestation. They were born at St. Benoit, county of Two Mountains, on the 28th February, 1878. The mother, a fine healthy lookeng woman, aged 26 years, states that she experienced unusual sensations in the womb during the period of gestation, and that towards its close the abdomen became so prominent she was ashamed to be seen by her friends. The weight also greatly fatigued her, and the movements of the children were very distressing. During her labour she was attended by a midwife. It lasted seven hours, commencing at 1 a.m. and terminating at 8 a.m. One head and body were first born; this was shortly followed by the lower extremities, and immediately after the second body and head were expelled.

REMOVAL OF THE END OF THE RECTUM WITH THE SPHINCTER ANI FOR EPITHELIOMA.

By George E. Fenwick, M.D,

Professor of Surgery, McGill University.

(Read before the Medico-Chirurgical Society of Montreal.)

The operation which I desire to describe to the Society this evening is rather novel in procedure, simply from the fact that very few cases are met with in which it may be considered suitable; extirpation or amputation of the rectum or rather a portion of that bowel has been practiced for over half a century. Lisfranc performed it as early as 1826, and claims to have relieved six out of nine cases. Other continental surgeons have, in isolated cases, removed several inches of the end of the bowel with variable success. It is an operation which has received unqualified condemnation from British surgeons, but I am under the impression that their opinions are too sweeping, as in my own limited experience there are occasionally met with undoubted cases of malignant disease of the end of the bowel which are capable of safe removal. In the 4th vol. of Holmes' Surgery, Mr. Henry Smith, in writing on this subject, remarks: "Some surgeons were, a few years since, in the habit of performing excision of the lower part of the rectum when affected with cancer; but this proceeding must be looked upon both as barbarous and unscientific, and is now happily exploded from the catalogue of surgical operations." This was the opinion of Mr. Smith in 1870, but from the more recent light that has been thrown on this subject, he may have greatly modified his views. Mr. Erichsen, in the last edition of his work just published, remarks (vol. 2, page 680): "When it (cancer) occurs as a primary disease it is usually in the form of epithelioma and may then form around the anus, just as it does at other muco-cutaneous appertures. If limited and detected in the early stage it may advantageously be excised, but at a more advanced period of the disease such a practice can scarcely be adopted with any prospect of success, in consequence of the impossibility of removing the whole of

the structures implicated." Mr. Allingham, in his work, holds much the same opinion. He observes: "In any form of cancer, save epithelioma, I do not think excision can be recommended." But although in epithelioma he admits the possibility of removal, yet only then when very limited. I may remark here that it is seldom that the surgeon meets with a suitable case for extirpation in cancer of the rectum. The disease does not attract early attention; a certain amount of discomfort is experienced, and this may continue for months, as the disease advances slowly and insidiously. The patient may believe he is suffering from piles and may resort to various quack remedies, or he may consult his surgeon, who without examination, pronounces the symptoms present as due to piles, and gives him an ointment of tannic acid or galls. Hence it is that in very many cases the real condition of the parts is made out when it is too late to resort to operative measures for the removal of the disease. One of the prominent objections to the operation is the danger of injury to the peritoneum, besides which in advanced cases the parts in the vicinity become so infiltrated as to preclude the chance of removal.

Continental surgeons have adopted this measure of removal of the end of the bowel, and we read of the variable success of Lisfranc, Velpeau, Billroth, Volkman and others. The latter surgeon does not attach such importamce to a wound of the peritoneum as others, as his system of treatment is simply after the manner of Lister, and if the peritoneum is opened he does not hesitate to deal with it much in the same manner as is followed in ovariotomy. Volkman, who has had very considerable experience in these cases, attaches great importance to free drainage, and he holds that with these precautions the patient is insured against the dangers of diffuse pelvic cellulitis which is so apt to spread behind the fascia and result in fatal septicæmia or peritonitis. He states that he has seen three permanent cures, by the early removal of undoubted cases of cancer of the rectum, and that in these cases the disease had not returned at the end of six, five and three years. This, certainly, is very encouraging, and has led him to believe that

cancer invading the rectum is less liable to become disseminated, and hence its early removal will greatly serve to protect the patient from systemic infection. Quite a number of cases have recently been performed in New York by various operators, and Dr. Van Buren has, in a recent number of the *New York Medical Record*, published a lecture delivered on this subject with a report of three cases. The case annexed is the first of the kind I have seen which, in my own opinion, was suitable for the operation. I have met with several cases of cancer of the rectum, and have performed colotomy in that affection on several occasions, not as a curative but as a palliative measure; but the case under review, notwithstanding the patient's great age, seemed to be one suitable for extirpation, which operation was carried out with success. The notes are as follows:

July 22nd, 1878, I was requested to see Mrs. N., an old lady of seventy years, who was reported to be suffering from dysentery. She was a hale and well preserved woman and had been the subject of procidentia uteri for many years. She was of a constipated habit, and whenever she went to stool the straining was so great that the uterus and bladder would be forced out and had remained so during the past six weeks. There was great difficulty in relieving her bowels, and for the last week or ten days, I was informed, she had a dysenteric attack, passing liquid fæces in small quantities, but very frequently, mixed with blood and mucus. The tenesmus was very distressing, and there existed a constant feeling of fullness and distention. There was also a burning, dragging feeling, extending up the course of the bowel, with pain over the sacrum and down the thighs. From the history and symptoms, I supposed that the bowel was filled with impacted fæces which was locally keeping up the irritation. I prescribed a dose of castor oil. This operated three or four times and gave much relief. The tenesmus, however, still continued, and she passed much blood and mucus. On the 26th, her daughter informed me that she had bleeding piles and that they were ulcerated. This led to a careful inspection, when the following condition was observed :—

Completely surrounding the anus was a fungus mass, ulcerated, with everted and ragged edges, presenting much the same appearance as is seen in epithelioma of the lips. On exploring the bowel with the finger, I found that the disease implicated about two inches of the anterior wall; the point of the finger reached above the diseased mass; the rugæ were large, corrugated and thickened, but the mucous membrane above and along the posterior wall was smooth and healthy to the feel. There could be no doubt as to the nature of the case, and I believed it to be one suitable for removal, and advised the performance of the operation. A consultation was demanded by the friends, and I met Drs. Howard and Drake the following morning. These gentlemen coincided with me in the nature of the case, and agreed in the advisability and feasibility of the removal by operation.

Some delay followed in consequence of objections on the part of some members of her family, but finally arrangements were concluded, and the operation performed in the following manner on the 6th of August, 1878. Dr. Roddick acted as my direct assistant, the other gentlemen above named were present, and assisted with their counsel and advice.

A dose of castor oil had been given the evening previous, and the lower bowel well washed out with an enema. Ether having been administered, the operation commenced by making an elliptical incision on either side of the anus. Cutting wide of the disease, the knife sank in well on either side into the ischio-rectal fossa, freely exposing the levator ani muscle. This was divided as far forward as was deemed advisable. There was no chance of saving the sphincter ani, as it appeared to be engaged in the disease. The posterior wall of the vagina, which was perfectly healthy, was readily reflected, and the bowel, freed from its attachments, was easily drawn down. All bleeding points were immediately secured with carbolized gut. At this stage of the proceedings, between three and four inches of the end of the rectum was hanging out of the wound, and I proceeded to ablate, cutting with a pair of scissors directly across the gut, fully above the diseased mass. Having divided about one

quarter of the entire extent of the bowel, the mouths of the vessels, both proximal and distal, were tied, and then the entire thickness of the bowel was stitched to the healthy skin. A second slice of the bowel was then made and treated in the same manner, and so on until the entire diseased mass was removed. As we proceeded, all bleeding points were secured, so that the amount of blood lost did not exceed six ounces. In attaching the bowel to the skin on either side deep sutures of silk were used, and where there was any gaping fine carbolized cat-gut sutures were introduced between those of silk. As much skin had to be sacrificed, it was necessary to close the wound posteriorly approximating the edges of the healthy skin on either side of the wound, and passing well down, two large-sized drainage tubes which were secured in position. These were with difficulty retained, and they had to be removed on the following day, as they appeared to be doing no good. After closing the wound, the parts were covered with a piece of lint soaked in carbolic oil and supported by a pad of cotton batting with a firmly applied T bandage. To avoid all straining, as well as to save the parts from injury, the urine was drawn off with the catheter; a full dose of morphia by hypodermic injection was given at night. At the evening visit the patient was perfectly comfortable; there was no straining or tenesmus, and she complained only of slight soreness. Her temperature was 99° F.

August 7th.—She passed a good night, slept well and comfortably, the urine was well secreted, healthy in appearance, and had been removed by the catheter twice during the night; she has taken milk and beef-tea in fair quantity, temperature, 99°; pulse, 100; tongue rather furred, and she suffers from nausea, in all likelihood due to the ether. The dressing was removed, and I found that the drainage tubes had been forced out of their position so that they were taken away. The wound was bathed with tepid water, thoroughly cleansed and dressed in the same manner as above described. The case progressed favorably. On the third day the bowels moved freely without pain or straining, suppuration was in due time established, and

the process of cicatrization went on kindly. The stitches were all removed on the eighth day: this added to her comfort, as during the last two days the action of the bowels was attended with some pain.

Union was complete by the twelfth day. There was no tendency to prolapsus of the rectum; the uterus and bladder still come down but are readily returned, in this respect the patient is no worse off than before the operation. At the present time, September 27, the parts are in a very satisfactory state; there is inability to retain the fæces, but she is fully aware when the bowels are going to act, and has sufficient warning to enable her to make preparations necessary for cleanliness. She is in excellent spirits, is able to go about the house, and has ventured out for a drive on several occasions. She has greatly improved in appearance and in condition, and expresses the hope of soon being able to have control over her bowels. The results are so far very satisfactory, and add one more case to those already published by other surgeons. It points to the necessity for an early examination in affections of the rectum, a rule insisted on by all practical surgeons, as it may be presumed that some cases at least are permitted to advance beyond the reach of surgical aid by the neglect of a careful and thorough examination as to condition in cases where such a serious malady may be suspected.

I have on a former occasion reported a case of epithelioma of the rectum in a young girl of twelve years, but in this case the disease extended up the bowel for a considerable distance, too far to permit of removal. In this case colotomy was performed as a palliative, with considerable relief to the distress and misery endured by the sufferer whenever the bowels acted.

Personal.

Drs. GEORGE ROSS, and WILLIAM OSLER, returned to Canada on the 25th ultimo, after a three months' holiday in Great Britain and on the continent. Dr. ROBERT CRAIK, has also been absent in Europe since last July, and is daily expected to return.

Hospital Reports.

MEDICAL AND SURGICAL CASES OCCURRING IN THE PRACTICE OF THE MONTREAL GENERAL HOSPITAL.

Case of Pyæmia.—Under care of Dr. WILKINS. Reported by JAMES BELL, M.D., Assistant House Surgeon.

M. C., æt. 23, was admitted on the evening of August 21st, 1878, with a painful swelling on the left antero-lateral aspect of the neck, and high fever. She was a servant girl of less than medium height, stout and well built. She was bright and intelligent-looking, but with very prominent eye-balls. Her family history was good and she had always enjoyed good health until five years ago, when she began to suffer from palpitation of the heart, and noticed an enlargement of her neck. She came to the hospital, and was found to have all the characteristic signs and symptoms of exophthalmic goitre. A prominent cyst in the left lobe of the thyroid gland was tapped, after which she says she did not suffer from palpitation or any other symptoms of this disease for two years, until the gland again became enlarged. Two years ago she had pneumonia and was treated in hospital. She menstruated for the first time two years ago and since then has not been regular, menstruating at intervals of one, two or three months. Her present illness began five days before admission with head-ache, back-ache, pain in her neck and fever. After the first day of her illness she had frequent chills and was very restless, not being able to sleep either by night or day. On admission, her temperature was 104° F., face flushed, breathing hurried, pulse rapid and intermitting. The eye-balls were very prominent, the anterior aspect of the neck much enlarged and painful, and towards the left side extremely tender. Two distinct and separate cysts could be easily made out—one at the extreme left of the gland very tense and tender, the other over the isthmus, pretty full, but not at all tender on pressure. She complained of pain in the tumor which extended down the sternal region. All the other organs were healthy. She did not sleep, and was very

restless, and at 1 a.m., had a severe chill, which lasted half an hour. The temperature was not taken after this chill. At 1 p.m., on the 22nd, she had another severe chill, followed by a temperature of 105° F. She was ordered 20 grains of quinine, to be taken at once, and an application consisting of equal parts of fluid extract of belladonna and glycerine to be applied to the tumor; also a mixture containing liq. ammon. acet. and tinct. aconiti, and she was given milk diet. The pulse was now pretty regular and rapid (124). No intermissions in the rhythm were subsequently noticed.

August 23rd, temperature 100½ in the morning; pulse 120; neck swollen and œdematous on left side. Left parotid gland enlarged and hard. She complains of sore throat and severe pain in the left ear. Ordered a linseed meal poultice instead of the belladonna application to the neck, and tr. digitalis m. iij. to be added to each dose of the febrifuge mixture, which was given every four hours; she had also twenty grains of quinine. She had a severe chill at 9.30 p.m., the temperature rising to 107° F. She had twenty grains of chloral at night, but did not sleep.

August 24th, temperature 100½ in the morning. All the symptoms already mentioned are more marked, especially the swelling and œdema of the neck. The painful cyst at the left extremity of the gland was aspirated and found to contain pus, which forced its way out drop by drop from the puncture made by the hypodermic needle. It was then opened with a scalpel, and about half an ounce of pus escaped. This gave considerable relief, and the evening temperature was only 102° F; pulse 100. She had again 20 grains of quinine in the afternoon.

August 28th, she became delirious in the afternoon, and by 10 p.m. had to be held in bed. She was given chloral and bromide of potash in large doses, an ice cap was applied to the head and she became quiet; temperature 99½ in the morning and 101½ in the evening. She perspired profusely during the day and had four loose feculant stools. She had no chills after the 23rd, but perspired freely and had two or three stools daily from the 25th.

August 29th, still delirious but quieter; abscess still discharging. Both parotids much swollen, so that the mouth can hardly be opened. Ordered 6 oz. brandy daily.

August 30th. Condition scarcely changed for the last two or three days. Pulse 90 to 100; temperature 99½ to 102. Patient restless and more or less delirious all the time. Digitalis omitted.

September 2nd. Patient seems quite rational and says that she feels better. Ear-ache quite gone. About 1 p.m. she became suddenly quite furious. The ice-cap, which had been removed for two or three days, was now re-applied to the shaven scalp. Ordered chloral and bromide again. No symptoms of brain trouble except the delirium. The delirium persisted and urine and feces were voided in the bed. At 9 p.m. the right arm was found to be quite paralyzed. As she was quite unconscious it was impossible to say whether there was any paralysis of the legs or not.

September 3. There is now complete paralysis of both sensation and motion in the right arm. There seems to be paralysis of motion in the right leg, but sensation does not seem to be interfered with. There are frequent spasmodic movements of the left arm and leg. There is no strabismus nor any affection of the pupils. Patient evidently sinking rapidly. She died at 5 p.m., the temperature being 107½ about half an hour before death.

Autopsy 19 hours after death.

Body that of a medium-sized young woman fairly nourished. Very slight mammary development. There is symmetrical swelling in the region of the thyroid, on the left side of which is a small opening discharging on pressure creamy pus. There is also considerable exophthalmus. On opening, abdomen organs appear healthy.

Thorax.—Pericardium normal and contains a small quantity of clear serum.

Heart.—235 grms. Substance and valves healthy. The right auricle and ventricle contain a good deal of friable clot.

Lungs.—There are firm adhesions over a considerable portion of both lungs, especially the left. Lungs crepitant. On

pressure they exude a good deal of frothy serum. Equally distributed through both are small dark patches (infarcts), the largest about the size of a bean. In two or three places there are thromboses of the pulmonary arterial branches, the vessels being about one-fifteenth of an inch in diamater. None of the infarcts have suppurated or softened. The lungs are light in color and in general appearance healthy.

Liver.—1080 grms. On section, the cut surface is obscurely mottled, but no definite infarcts are to be seen. Gall bladder, moderately full.

Spleen.—Rather large and firm. Malphigian bodies very firm. No infarct.

Pancreas normal.

Kidneys.—300 grms. each. Capsules not adherent. Numerous dark patches on the surface of both organs (infarcts). The left has a couple of small abcesses, each about the size of a pea, and a small quantity of pus in the pelvis, apparently derived from one of these.

Stomach and *intestines* apparently healthy.

The *thyroid gland* consists chiefly of cysts of various sizes, between which are tracts of gland tissue, the latter almost entirely confined to the right lobe; a large sac occupying nearly all the left lobe of the gland, and, opening externally, contains a small amount of pus. A cyst rather larger than a pigeon's egg occupies the isthmus, and lies upon the trachea. This contains sero-purulent fluid. The right lobe contains numerous cysts, varying in size from a pea to a marble. Some of these contain clear serum and others caseous matter. The cellular tissue of the left antero-lateral region of the neck, especially that between the deeper muscles, is infiltrated with pus. The left parotid gland is large and firm, and in its substance are several suppurating cavities. The right parotid is very much swollen and hard, but is not suppurating.

Brain.—1280 grms. The superior longitudinal, straight and right lateral sinuses, with the superior cerebral veins down to their finer branches are filled with a firm black clot, in which are noticed two or three suppurating points. The dura and

pia mater are much congested, and the surface of the convolutions very red. (The brain was not dissected when fresh, but preserved for some time in nitric acid solution). On dissection, the whole interior of the left hemisphere forming the roof of the lateral ventricle is found to be quite soft and broken down. A smaller spot of similarly disorganized cerebral substance is found in the centre of the right hemisphere. This softening is probably post mortem. A black clot, fusiform in shape and about an inch long by half an inch in diameter, is found extending into the anterior extremity of the middle frontal convolution of the left anterior lobe parallel to the longitudinal fissure. It extends into the brain from the surface, but no definite connection with any of the vessels can be made out.

Case of Puerperal Eclampsia.—Occuring at the University Lying-in Hospital. Under care of DR. MACCALLUM. Reported by Mr. W. R. SUTHERLAND.

Mary Welsh, æt. 20, was admitted into the University Lying-in Hospital 16th March, 1877, pregnant of her second child. History elicited from her at previous confinement, Dec. 1875, was as follows:

She is well built, healthy looking, about 5 ft. 6 in. in height, fair complexion, dark hair, and rather stout. Has always enjoyed good health, never having been ill since her childhood, when she describes having a fever. At times of menstruation she is always unwell for a long time, great quantity of discharge. Since gestation commenced has suffered severe headaches and occasional dizziness.

She is of an apparently healthy family, but says her mother always has convulsions at time of labor.

Since recovery from her first attack, in January, 1876, she has been anæmic and suffering from Bright's disease. For the last week she has complained of severe headache, pain in the stomach, perversion of special senses, flashes of light before her eyes, momentary blindness and ringing in the ears. Menses stopped July 1876.

March 18th, Sunday, at 8 p.m.—Complained of blindness, and sent for the Matron, who, on going to her immediately, found her in a convulsion. This was followed by drowsiness and partial insensibility; half an hour afterwards she had another convulsion. I saw her just after the spasm had ceased, she was then in a condition of deep stupor, but could be roused by a loud question, and complained of severe headache. We removed her to the Lying-in Room. I then drew off the urine, it was very high-colored, contained at least 80 per cent. of albumen. Pulse 120; skin moist and cool. No convulsions for an hour.

At 11 p.m.—Dr. MacCallum visited her and ordered pulv. jalap co., to be given at once; potass bromide, grs. xx every hour, 3rd dose to be intermitted and replaced by 20 grs. chloral. If purgative did not act in 3 hrs., she was to have an enema. Patient was now in complete stupor. Pulse 120. Fœtal heart heard very loudly about an inch below umbilicus in median line. On making vaginal examination, found os uteri firmly contracted, uterus high up almost out of reach, presenting part could not be felt through the walls of uterus. No uterine contractions. (Preceding convulsions lasted about 1 minute each.)

1 a.m.—7th fit lasted 90″, followed by stertorous breathing for about 5 minutes.

2 a.m.—8th fit, very severe. No action of the bowels; gave an enema; brought away a small amount of fæcal matter. Head rolling from side to side, convulsive twitching of eyelids, eye balls rolling, pupils much dilated but respond readily to light. Legs and arms in constant motion. From this time (2.30) till 7 a.m., she had seven more convulsions, long and severe, and occurring at intervals of 30 and 45″. Emptied the bladder only about ℥ss. of urine, dark in color, and more albuminous than before.

7 a.m.—16th fit, lasted 1 minute; pulse 130; surface warm but somewhat cyanosed; conjunctivæ insensitive to touch; pupils normal; irregular spasmodic jerking of body and limbs.

7.15.—Lasted one minute, followed by stertorous breathing.

7.30.—Same in character.

7.40.—Lasted one minute; fœtal heart cannot now be heard.

7.50.—An attack of well marked opisthotonous lasted two minutes; tongue swollen and protruding; no clonic spasms.

8.15.—Lasted 80 ″. Face and upper extremities now quite cynaotic. Pulse 140; weak, can hardly be counted; swallows with difficulty. Loud mucous gurgles in trachea and pharnyx. Respiration seemed to be impeded by the accumulation of mucous; the handle of a spoon was inserted crosswise between the teeth and kept there, the result being of manifest advantage.

10.00 a.m.—Lasted one minute; less rigidity. Patient appeared a little better. Fit preceded by spasmodic contraction of recti muscles.

11.45.—Lasted 45 ″; omitted regular dose of chloral.

1.40 p.m.—Very severe; lasted two minutes; gave P. Jalapæ co. ℥i, followed by an enema at 4.30 p.m., which removed a large amount of serous fæcal matter. Has taken beef-tea freely to-day.—Brandy now added.

4.30.—Removed ℥i of dark, smoky-looking urine—the accumulation of three hours. Pulse 1.40; respiration moaning. Urine solidifies on testing.

5.00 p.m.—Uterine contractions noticed. Os dilated, size of half a dollar. Labor proceeded regularly; no more convulsions. Breech presentation. 2nd dorso posterior or 4th position—child delivered easily. Pains strong; scarcely any intervals between them. Delivery occurred at 8.00. a.m. The medicine was discontinued at 5 p.m. Child—female—still born, weight, 3 lbs.

Placenta, adherent, but easily removed; uterus well contracted, not uneven.

10.00 p.m.—Pulse 140; temperature 102°.

Very restless throughout the night; difficult at times to keep her in bed from the tossing about.

20*th*.—Urine more abundant this a.m.; color more natural; only 20 per cent. albumen. Pulse 120; temperature 101°.

Afternoon.—Patient quiet—protrudes tongue when asked to do so. Temperature 101.

21*st*.—Quite conscious; feels very sore. Breasts enlarging; is aphonic; throat sore, cough, headache.

7.30 p.m.—Temperature, 100; feels better; pulse 120. Lochial discharge free.

22*nd*.—Pulse 120; still hoarse; looks well; is very low spirited. Albumen in urine about 10 per cent.

23*rd*.—Pulse 100; still low spirited; has had general headache and amaurosis; at times, flashes of light; sees things coloured green, red, &c. This state of things is decreasing. Bowels have been moved two or three times each day since delivery. Hoarseness less marked. Pharynx rather more sensitive, though it can still be freely handled without producing much discomfort.

25*th*.—Spirits good; pulse 98. Tongue clean and moist. Eats well. Urine still contains a little albumen.

28*th*.—Recovered voice and is now quite convalescent.

Laryngeal Diphtheria.— Tracheotomy. — Recovery. — Under Dr. Roddick —Reported by H. N. Vineberg, M.D.

L. L., æt. 6, was admitted January 15th, 1878, into the wards of the Montreal General Hospital, with symptoms of laryngeal diphtheria, great dyspnœa, labored breathing, base of chest retracted, and lips and finger nails quite cyanotic. On examination the tonsils were found enlarged, and covered with a greyish-white membrane, which extended downwards as far as the naked eye could see. There was no enlargement of the cervical glands. Three days before admission the little patient was attacked with a "sore throat," but croupal symptoms did not set in until forty-eight hours afterwards. The usual treatment for laryngeal diphtheria having had no effect, and the symptoms becoming more alarming, the medical attendant advised the parents to bring the child to the Hospital, with a view of performing tracheotomy. Accordingly the child was admitted at 12, noon, and very shortly after, as there was no time to lose, Dr. Roddick, assisted by Dr. Ross, performed tracheotomy, (the high operation) in the ordinary way. The opera-

tion was attended with scarcely any hæmorrhage. Just as the incision was being made into the trachea, there was intense spasm of all the respiratory muscles, but as soon as the tracheotomy tube was introduced, the spasm passed off, and quite a mass of membrane was brought up through the tube. After a few powerful expiratory efforts the breathing became much improved, and within an hour after the operation. the patient's lips and finger-nails regained their natural colour. Carbolized lint and oiled silk was introduced between the rim of the tube and the edges of the wound, and a large woolen cloud was wrapped around the patient's neck. He was then put in the "Infectious Ward." Steam, impregnated with carbolic acid, was kept up about the patient's head, and he was ordered to be given salicylate of soda, grs. 5, in solution, every three hours plenty of milk and 3 oz. of brandy.

January 16*th*.—Coughed up several pieces of membrane this morning. Carbolized lint removed, and nothing but oiled silk intervening between the tube and the wound. Wound healthy looking. Takes plenty of nourishment.

17*th*.—Removed the tube to-day for the first time since the operation. After cleaning it, it was re-introduced. The patient had to be put under chloroform at the time. Cervical glands slightly swelled, poultices to be applied to them. Ordered to burn 3ss of sulphur in the ward every two hours. Takes plenty of milk, but cannot be made to take the brandy. To have beef tea. Tinct. ferri mur. and glycerine in equal parts were ordered to be applied to the inside of the throat, but the nurse found it impossible to carry this out.

19*th*.—Has brought up, through the tube, several pieces of membrane. Breathing considerably embarrassed to-day, and it is feared the disease had extended downwards. Removed tube and replaced it by one of Trousseau's. Considerable redness about the wound, and a number of small white vesications near its margin. Lead lotion to be applied. At 4 p.m. the breathing became much easier after bringing up a small piece of membrane. Moderate discharge of a puriform fluid through the tube ever since the operation.

20*th*.—Vesications about the wound are extending. Appearances suspicious of diphtheritic action. To add hydrocyanic acid to the lead lotion.

21*st*.—Removed the tube. Patient doing well. Tested the power of breathing in the natural way, by closing the opening in the trachea with a cork, and found it to be very defective. Accordingly after the tube was cleaned it was re-introduced. Tincture Ferri. Mur. in small doses was ordered, but the patient could not be made to take it. The swelling of the glands has almost entirely disappeared. The white vesicles are diminishing and have been caused, no doubt, by the glycerine and carbolic acid dressing. A weaker solution to be used hereafter. Ordered lime water spray through the tube. Temperature since the operation has ranged from 100° to 101° F. Pulse from 112 to 140. Respirations from 24 to 36. Pulse, resp. ratio from $3\frac{1}{2}$ — 5 to 1.

22*nd*.—Not so well to-day. Had a severe fit of coughing early this morning.

Breathing somewhat laboured. Discharge through tube increased. Does not take his nourishment so well. Urine is clear, copious, and contains albumen (33 per cent.) for the first time, it having been tested daily. Tongue is coated with a heavy white fur, a few coarse bronchial rales heard over the chest. Temperature 100° F. Pulse 112. Respirations 30.

23*rd*.—Passed a good night, and is much better to day.—Changed for the better yesterday evening. On removing the tube it was found very much discoloured. Tested breathing, and finding it still defective, the tube was reintroduced. Redness and vesicles about wound disappearing. Takes plenty of milk, but will not take stimulants of any kind. Urine of amber colour, deposits a slight sediment, and contains 25 per cent. albumen. Under the microscope an occasional hyaline cast, and a few white globules are seen. Temperature 99.4°. Pulse 108; respirations 30.

25*th*—Yesterday afternoon, the nurse noticed little bits of orange coming out through the tube after the patient had partaken of some. Complains of considerable pain on swallowing.

To-day the nurse noticed some egg which patient had eaten come out through the tube. Otherwise patient is doing well.

Percentage of albumen in urine somewhat less.

28*th.*—Milk and food taken escapes through the tube freely. A drink of milk excites a fit of coughiug, and then the milk streams out through the tube. Introduced to-day a new tube with a fenestrum in it. Opening of tube was closed by a cork, and the patient breathed through the natural passages, but with great difficulty, for about 15 seconds. Urine high coloured. Albumen almost disappeared. No casts to be seen with the microscope.

Temperature suddenly went up yesterday evening, from 98° to 100° F. Pulse 124; respirations 36.

29*th.*—Ordered to be fed in the recumbent posture, and it is found that not so much food escapes through the tube in this way. After several successful trials of the power of breathing, *per vias naturales*, the tube was removed and left out. Patient speaks now more distinctly, but still in a whisper. A rather copious eruption of varicella came out to-day all over the body, explaining the sudden rise of temperature. Urine contains about 25 per cent. albumen. Temperature 101·2° F. Pulse 125; respirations 40.

February 1*st.*—About 4 p.m. yesterday patient was suddenly seized with vomiting, became very faint, surface and extremities grew cold, the breathing became hurried, and the face livid. By applying warmth to the body, and giving stimulants internally, he rallied in about 45 minutes.

He had a tolerably fair night after this attack. He is not so well this morning, and has had a spell of rapid breathing, (80 per minute), again.

2.00 p.m.—Breathes nicely now, and is much better. As the food taken by mouth still continues to escape through the tube in considerable quantities, enemata of beef-tea and brandy every four hours were ordered in addition. The enemata are well retained. Has some retention. Has only passed 4 ounces of urine during the last twenty-four hours. It contains about 10 per cent. of albumen. Some of the varicellar vesicles are matur-

ating while others are coming out. Temperature 101° F. Pulse 120. Respirations 40. From this time until complete convalescence was established, the temperature was normal (98° F.) Pulse ranged from 110 to 120, and the respirations from 36 to 40.

5th.—Complains of pain in the back of the head, and for the last few days has had pain in the lower limbs, and some numbness. Still suffers from some retention. Eruption of varicella has disappeared. Takes food by mouth much better, it does not excite so moch coughing. To have an enemata only every six hours. Wound healthy-looking.

10th.—The patient is doing very well, no more food passes through the opening in the trachea. Wound doing nicely, and is strapped with adhesive plaster.

Retention has passed off, urine still contains a small percentage of albumen.

18th.—Allowed to sit up. Wound healing nicely.

25th.—Patient was taken home by his parents to-day.

30th.—After he left the hospital the wound healed rapidly, but for a long time the little fellow suffered from a hoarse barking cough, which was much worse at night. Loud rhonchi were heard over the root of both lungs behind during this time. The voice continued husky for a long time after the external wound had completely closed. For the first four weeks after he left the Hospital he improved in general health but slowly, but after that he picked up wonderfully, and is now quite fat and well in every respect

This adds one more case to those already published of the success attending the performance of tracheotomy in laryngeal Diphtheria. The case was most urgent, the symptoms at the outset were severe and pronounced, the results most gratifying. As it is the rule in practice, one closely followed in this Hospital, to open the trachea whenever, from extension of the disease, implicating the larynx, the life of the patient is threatened, we may reasonably hope that ere long other successful cases will be chronicled.

Reviews and Notices of Books.

The Physicians' Visiting List for 1879.—Twenty-eighth year of its publication, well bound in leather, with tucks, pocket and pencil. Philadelphia: LINDSAY & BLAKISTON.

We have received a copy of the Physicians' Visiting List for the year 1879. It comes to us in the same familiar form like an old friend with a new garment, and as full as ever, with all the requirements needed by a physician in a work of this kind.

We have seen many other somewhat similar lists, but this, "The Physicians' Visiting List" is the parent of them all, we have become accustomed to its use and could ill be without it. These lists can be had of any bookseller to supply space for 25, 50, 75 or 100 patients a week. The book is convenient in form, not too bulky, and in every respect the very best visiting list published.

Elementary Quantitative Analysis. — By ALEXANDER CLASSEN, Professor in the Royal Polytechnic School, Aix la-Chapelle. Translated with additions by EDGAR F. SMITH, A.M., M.D., &c., &c., with thirty-six illustrations. 8vo. pp. 328. Philadelphia: HENRY C. LEA, 1878.

We hail with satisfaction the translation of this little work. We have been acquainted with it for some time as a practical and concise guide, and we believe it will be found to fill an important niche in the library of the real practical chemist. It is a compact and useful manual of quantitative analysis. The author has sought in these pages to illustrate his subject by examples, beginning with simple determinations, following on with a number of alloys, and then proceeding to the analysis of minerals and other products which are submitted in the various departments of applied chemistry. It is sufficient to mention the fact that this book has been adopted as a class book in nearly all the laboratories of continental schools, and has taken rank by the side of larger and more voluminous works on this subject,

and even in Great Britain and the United States, it has been most favorably received as a thoroughly reliable guide. This is the opinion of those who have used it in the original. but their work will be greatly facilitated, at least, we refer to English-speaking students, since they have now an excellent translation, and one which has received at the hands of the translator such additions as the advance of scientific facts rendered necessary.

A Guide to the Practical Examination of Urine.—For the use of Physicians and Students.—By JAMES TYSON, M.D., Professor of General Pathology, &c., &c. Second edition, 8vo. pp. 172. Philadelphia: LINDSAY & BLAKISTON, '78.

In this the second edition of this little work, the author has carefully corrected and revised it, and has incorporated into its pages such additional facts as were deemed consistent with the original purpose in its publication. This has been done without increasing the size of the volume. The author at the outset mentions the theory of Ludwig, of the method of secretion of urine He then mentions the reagents and apparatus required for quantitative as well as approximate analysis. The selection of a specimen of urine for examination is then referred to, and in making the selection the necessity for obtaining a part of the total amount of urine passed in the twenty-four hours is mentioned. The general physical and chemical characters of the urine are next given. He then passes on to the study of the different constituents of urine in health and disease, taking up first the organic constituents and then the inorganic. Urinary deposits forms the subject of the next section, the closing sections being on the differential diagnosis of renal diseases, and urinary calculi. The directions given throughout the work are clear and distinct. Those who desire more elaborate information on the chemistry of the urine will have to consult larger treatises on the subject, but we regard this little work as containing all that is really essential in a concise form. It is just such a treatise as the busy practitioner will find of the greatest service, and we can, without hesitation, commend it to our readers.

The Antagonism of Therapeutic Agents and what it teaches. The essay to which was awarded the Fothergillian Gold Medal of the Medical Society of London for 1878. By C. Milner Fothergill, M.D. Edin., &c., &c. 8vo. pp. 160. Philadelphia: HENRY C. LEA, 1878.

The author in this essay gives a short and pithy view of the subject of the antagonism of toxic agents. He divides the subject into two departments, experimental and practical. That is he gives the results of experiments which he and others have made with various substances, keeping in view throughout the work the practical bearing of these experiments.

It is quite recently that the subject has demanded attention prominently. Formerly chemical antidotes were those only known, or those giving mechanical results. We knew that an alkali would neutralize an acid. That tannin in any form would form an insoluble compound with tartar emetic, and that sesquioxide of iron would throw down arsenic, provided it was in sufficient quantity. These effects were observed alone when the poison was in the alimentary canal but if a deleterious substance had entered the blood nothing could be done, but wait patiently with the hope that it would be eliminated.

This little work consists of seven chapters. The first two are described as being upon experimental inquiry and practical inquiry, the one being a continuation of the other. The third chapter treats on the effects of drugs on the nerve centres. Chapters IV and V are on the action of drugs on the circulation and on the respiration respectively. In the sixth chapter we are taught the practical use of a knowledge of the antagonism of drugs, in cases of actual poisoning. And in the last chapter, we have a concise but lucid description of the uses of a knowledge of antagonism of drugs in ordinary practice. This is really a most interesting little work, and the contents should be familiar to all, as its practical bearing and teaching is quite indispensable to the physician who desires to follow his art with ordinary success.

A Clinical History of the Medcial and Surgical Diseases of Women.—By ROBERT BARNES, M.D., Lond., Censor of the Royal College of Physicians, &c., Obstetric Physician and Lecturer on Obstetrics and the Diseases of Women to the St. George's Hospital. Second American from the second London edition, with 181 illustrations. 8vo. pp. 784. Philadelphia: HENRY C. LEA, 1878.

The first edition of this work appeared in 1874, but since then the book has received at the hands of the author a thorough revision, by which he states that many changes have been made; space has been gained, by pruning and re-arrangement, so that additional material is given without increasing the size of the the volume. A new chapter on the relations of bladder and bowel disorders to affections of the uterus and appendages is to be found. Many new illustrations have been added, and when these have been borrowed from other works, their source is duly accredited.

We have in this work the experience gained by Dr. Barnes after years of patient labour and study as a practitioner, teacher and examiner, what he has himself observed he has had faithfully illustrated, but he has endeavored to correct his own observations by the illustrations of others.

The work is divided into twenty-nine chapters, the first six being introductory, giving the anatomy of the pelvic organs. The uterus and its appendages, Douglas' Pouch, the axis of movements of the uterus, changes which occur during menstruation. The conditions indicating a necessity for local examination, constitutional reaction, disturbed function, such as amenorrhœa, menorrhagia, dysmenorrhœa, leucorrhœa, irritable uterus, irritable ovary, martodynia, neuralgia, such as spinal irritation, paraplegia, mental derangement, reflex nervous phenomena, vomiting, convulsions and epilepsy, hysteria vaginismus, sterility. The significance of symptoms connected with the bladder, peri-uterine affections, ischuria; cystitis; foreign material found in the bladder, causing an irritable condition

of that organ. This calls to mind a case which we published in the last number of this journal of the passage of hair in the urine in a child. On this point the author observes at page 132. "Hair, fat and teeth may find their way into the bladder and urine. They afford conclusive evidence that a dermoid cyst has contracted adhesions with the bladder, and established a fistulous communication." This bears out the assumption we made in respect to the case above referred to, no dermoid tissue or cyst was found in that remarkable case, and therefore we were forced to look for some other to account for the phenomenon.

A description of the instruments serving for diagnosis and treatment of uterine affections is given in chapter iv.

The various methods of examination are described in chapter V. The pathology of the ovaries. The history of menstruation and disorders of menstruation are next treated of in the succeeding five chapters. Diseases of the ovaries, absence of the ovary, congenital displacements, cysts and their treatment, extra uterine gestation, &c., are described in the next six chapters. There is a chapter on the spinal pathology of the uterus, in which the author takes a rapid view of congenital abnormalities, as he observes this is necessary before entering upon uterine pathology proper, because, these conditions are often attended with disordered function, and give rise to symptoms which are extremely puzzling unless these special conditions were known as likely to exist. This chapter is illustrated with a number of engravings showing various abnormalities, such as a uterus strongly developed to the right, probably a specimen of important development toward the left side, double or biconate uterus, with a single cervix from a specimen in the museum at Guy's Hospital, another of double uterus and vagina also from Guy's Museum. These are of interest from their rarity. The next chapter is on the effects of labour and lactation, involution in defect and excess, conditions marked by altered vascularity, metritis, endometritis, or uterine catarrh, with intra-uterine medication, is the next treated upon. Pelvic cellulitis, pelvic peritonitis, and intro-peritonitis are then dis-

cussed: blood effusions in the neighborhood of the uterus, with groups of cases is given in chapter xxi.

Displacements of the uterus forms the subject of the next chapter. These have always been a source of trouble and difficulty to the practitioner, and we need only to refer to the numerous mechanical contrivances each claiming pre-eminence for the relief of uterine displacements, to indicate the very unsatisfactory practical knowledge we possess on the subject. The author alludes to the fact that some have declared that they have failed to recognize displacements of the uterus, and therefore they refuse to believe in their existence; of such we can only say they must be obtuse in a degree surpassing belief, as it is impossible to fail to recognize these conditions, if a careful and intelligent examination be made. With regard to pessaries, the author remarks in reference to tho their use, that a prolapsus is a hernia, and a pessary a tenis, and that although surgeons have with ingenuity introduced several operations for the radical cure of displacements, yet "pessaries are still found necessary." But before applying them he points to the necessity of careful examination with the aid of the sound, so as to ascertain the presence or absence of adhesive bands.

The author gives a description of many forms of pessary, and refers to the objectionable features of some, especially Zwanck's instrument. The expanded wings of this instrument are apt to produce ulceration of the vaginal walls, and in some instances, the author states, he has found difficulty in removing the instrument as it had become incarcerated by union of granulation tissue, and contraction of the ulcerated surfaces. Hodge's lever pessary is, perhaps, the least objectionable of all forms of uterine support, but even this instrument will in some cases utterly fail of giving relief. Thomas' pessary, which is a modification of Hodge's instrument, is often of great use in extreme cases of prolapsus, but the author states that in practice he has found a pessary invented by Dr. Scott, of Woodstock, Canada West, to answer the purpose far better. The various operations for the relief of prolapsus uteri, are referred to. Versions and flexures of the womb are next discussed, and the various

methods of treatment given. Chapter xxiv is dovoted to tumours of the uterus, malignant and benign, their structure, seat, shape, density, vascularity, the law of growth, &c., and their treatment. He does not condemn, nor yet speak hopefully of the removal of tumours of the uterus by abdominal section, either alone or with the uterus, and he remarks that the time has not yet come for giving a confident opinion; "at "present there is little ground for enthusiastic advocacy of the "practice." That for the present the question must remain *subjudice*.

Uterine polypi, tubercle, and cancer of the uterus are next discussed, and the last two chapters are devoted to diseases of the vagina and of the vulva. The arrangements of the subjects discussed are peculiarly his own, and open to objection, but the subject matter is particularly readable. We commend this work to our subscribers, it is a valuable addition to the literature of the subject, and to the practical man will be found an invaluable guide.

Extracts from British and Foreign Journals.

Unless otherwise stated the translations are made specially for this Journal.

Circulation of the Blood in the Extremities.—Professor Lister, of London, on the influence of position on the circulation of the blood in the extremities, lately communicated to the Paris Academy of Medicine the results of his personal researches on this important subject. In the ordinary operations for resection of the wrist joint the hæmorrhage was quite abundant; and with a view to remedy the evil, he raised the arm to be operated upon, and kept it elevated for several minutes, after which the tourniquet of Petit was rapidly adjusted so as to arrest the circulation in it. By this procedure the arm was almost completely deprived of blood, and the surgeon allowed the double advantage of being able to avoid the hæmorrhage, and to inspect the parts with care and precision. The advantage thus obtained seemed sufficiently important to Professor Lister to recommend the method in other operations.

Towards the close of the year 1873 he explained to his students the value of this method. He raised one of his arms perpendicularly, while the other was allowed to hang at his side, to shew the difference in color of the two hands placed in such different positions. The reduction in temperature which occurred in the elevated hand convinced him that something was going on which purely mechanical effects could not explain, and that the diminution of the blood pressure within the vessels was due to a stimulus of the vaso-motor nerves of the arm, and to a reflex contraction of the muscular fibres of the arteries.

Some physiological experiments on animals have confirmed the author's opinion; and he concludes from them that the facts observed cannot be explained as purely mechanical results of the diminution and increase in the blood pressure in consequence of the change in position of the limb. The arteries are but little disposed to yield to an increase of pressure coming from within. Thus, notwithstanding the powerful force with which the blood is propelled by the cardiac contractions, their diameter may be considered constant during the systolic and diastole. M. Lister made the following experiment before the Academy : applying an elastic band on a limb near its juncture with the body, after having been elevated for several minutes, it was observed to remain free from blood, although the limb was allowed to hang down, On raising the limb the second time and in that position removing the band, it rapidly filled with blood, notwithstanding the fact that the position was the same which caused the blood to leave before the application of the tourniquet.

These results are explained thus by Prof. Lister : After the tissues of a limb have been deprived of blood, for a certain time, then arises, so to speak, a circulatory want, and this acts as a stimulus to relax the arteries by acting through the vaso-motor in the same manner as heat. This stimulus of the circulatory want causing relaxation of the arteries, becomes stronger than the stimulus of relaxation of the veins excited by gravity, which, in another case, would cause their contraction.

Another experiment consists in exciting the circulation by a few minutes running, and then to raise the arm and lower it

after a few moments. The limb is seen to redden and congest exactly as it does after the cessation of cold applications.

In order to prove that all these phenomena depend on reflex action, Prof. Lister remarks that if the course of them was purely mechanical and physical, the lower part of an artery of an elevated limb would enlarge, because there would be a reflux of blood from the upper part. It is the opposite which is true, as was determined by the Professor in exposing the inferior portion of the femoral artery in a large calf very near the abdomen. After the contraction produced by the operation had subsided, he measured the exact diameter of the artery externally in different positions of the animal; and the results obtained confirmed his theory.

He also explained to the academy the results of an experiment performed on a horse. With the aid of a rope and pulley he had been able to change the position of the animal so that at one time he could be placed upon the back with his feet in the air; at another on the side, his limbs in the horizontal position; and at another be allowed to regain his feet. The metacarpal artery was exposed in its inferior part, and on elevating the limb, it was seen to be without pulsation; and the wound deprived of blood, resembled a wound in a cadaver. The diameter of the vessel was measured with a pair of compasses. When the leg was elevated it hardly exceeded that of the same artery divided and emptied of its contents, while in the horizontal position, and especially, when the limb had hung down, its enlargement was considerable. In calculating the internal calibre from the external diameter of the artery, it was found that in changing the elevated to the horizontal position, the calibre was more than three times as great, and in allowing the limb to hang, it was six times as great.

It is necessary to note that for the surgeon there is no appreciable difference in the diameter of an artery between the systole and diastole. Morever the well-known experiment of Holles, who fixed a long vertical tube in the carotid of a horse to see how high the blood would ascend under the influence of the cardiac impulse. This experiment demonstrated that if it had

only to resist the action of gravity, it would ascend to a height of more thau eight feet, or more than twice the length of the limb.

Prof. Lister closed his communication by pointing out some of the medical and surgical applications of which his theory is susceptible. He recalled the happy results of raising the arm in the treatment of epistaxis. According to him elevation of the arm causes a reflex contraction of the arteries in the upper extremities, and secondarily, a sympathetic contraction of the arteries of the face.—*La Tribune Medicale.—The Cincinnati Lancet and Clinic.*

The Odor of Sanctity. — Dr. Hammond, of New York, is fully persuaded that many of the saints of the earlier days of the church were highly odoriferous; and this peculiar quality he distlnguishes from the ill-smelling savour, due to a neglect of washing, and attributes it to an affection of the nervous system. Several curious instances of fragrant saintly emanations are quoted. When the blessed Venturin of Bergamos, we are told officiated at the altar, the people struggled to get as near as possible in order to enjoy the perfume he exhaled. St. Francis de Paul gave off most sensibly a delicious odor, after he had fasted thirty-eight or forty days, and had subjected himself to frequent disciplinary inflictions. The body of the blessed Liduine emitted a delicious redolence, which was sensible not only to smell but to taste, as it left on the tongue and palate an impression like that of chewing camelia. Dr. Hammond refers to three cases which have fallen under his notice, in which specific odor has been given off from the body, as a result of affections of the nervous system. In the first, a young married lady, of strongly hysterical tendencies, exhaled an odor of violets, which pervaded her apartment, and was distinctly perceptible at a distance of several feet from her. This pleasant fragrance was given off from the left half of the chest only, where the perspiration was remarkably increased, and could be obtained in a concentrated form by collecting the perspiration in a cambric handkerchief, heating this with four

ounces of spirit, and distilling over one-fourth of the spirit. The distillate was strongly impregnated with the perfume of the violets, which was converted into that of pine-apple on the addition of bicarbonate of soda. It is assumed that this perfume was dependent upon the presence of butyric ether in the perspiration. The administration of the salicylate of soda ultimately relieved the lady of the violaceous redolence, which she was most anxious to part with. In the second case a pineapple odor was exhaled with insensible perspiration by a young lady suffering from chorea. In the third case, a violaceous odor was emitted by a hypochondriacal gentleman. Dr. Hammond has known unpleasant odors to be emitted from the body during emotional excitement. A young lady suffering from sick headache, smelt of Limburg cheese. At present, all that we can say is that the peculiar odors referred to are the result of nervous disturbance.—*Michigan Med. News.*

Tight Strictures of the Urethra.—On the use of Gouley's tunnelled instruments in the treatment of tight strictures of the urethra, by Reginald Harrison, F.R.S., (Surgeon to the Liverpool Royal Infirmary) at the last meeting of the Lancashire and Cheshire Branch, I advocated the more general employment of Gouley's tunnelled bougies in the treatment of tight strictures of the urethra. I have recently had under treatment, in my wards at the Liverpool Royal Infirmary, three cases which well illustrate the observations I then made as to the great service these instruments were capable of rendering.

Case I.—On June 27th, 1878, J. P,, aged 27, was admitted suffering from stricture of several years' duration. On this, as well as on a previous occasion, it was found necessary by my house-surgeon, Mr. Hodgson, to tap the bladder above the pubes with the aspirator. This gave immediate relief. Two days after his admission, he again had retention whilst I happened to be in the infirmary. I succeeded in passing one of the finest filiform bougies, and upon this a tunnelled catheter, which was retained for some hours; from this date, dilatation upon the same princi-

ple was gradually commenced, the size of the tunnelled instrument being increased from time to time, until a number 9 ordinary bougie passed easily, when the patient left the hospital.

Case II.—J. W., aged 60, was admitted under my care on June 12th, 1878. Thirty years previously, he had a fall on his perinæum, rupturing his urethra, for which perineal section was successfully performed by Dr. Evans of Belper. Unfortunately the patient does not appear to have followed up the treatment of his own case, by that regular introduction of bougies which in all cases of traumatic stricture is absolutely necessary, and occasional attacks of retention was the natural consequence. As I expected I found a very tight stricture, which would only admit a filiform bougie. Upon this a tunnelled bougie was passed, and dilatation continued until a Holt's instrument could be introduced On several subsequent occasions, I passed Holt's instrument, using it as a dilator on the principle of a glove-stretcher ; by these means the dimensions of the urethra were soon enlarged, and the patient was able to leave the Infirmary passing urine in a good stream.

Case III.—W. J., aged 42, was admitted on July 5th, 1878, suffering from retention of urine, which had existed almost completely for a week, it having been found impossible to pass a catheter. On admission, I could only get into the bladder the finest filiform bougie, upon which a catheter was passed sufficiently large to allow of the bladder being washed out. In addition to the cystitis, there was a large suppurating pouch behind the stricture, with extensive kidney disease. The condition of this patient illustrated the consequences which may arise where a stricture of the urethra is allowed to remain untreated. He gradually sank with symptoms of uræmia, and died on July 14th. A *post mortem* examination showed what had been predicted—viz., a suppurating pouch behind what had been a very tight and extensive stricture, cystitis, and suppurative nephritis.

In commenting upon my remtrks, Mr. Lund drew attention to an objection that can be raised to the use of these instruments—viz., that, on passing the metallic bougie along the

whalebone guide, unless care be taken, the bougie is apt, on reaching the stricture, to double upon the guide, and then, if force be exercised, a false route may unintentionally be made. Short of failing to introduce the guide, this is the only accident that is likely to occur in the use of these instruments. It does not, in my opinion, detract from their efficacy, inasmuch as I can hardly imagine any surgical instrument being made without requiring in its use that skill and knowledge which can only be acquired by experience and observation. I admit the propriety of Mr. Lunds's comment, and record it as a point to be remembered when using these instruments.—*British Med. Journal.*

Nephritic Abscess.—(Nephritic Abscess—opened by lumbar incision—great relief—bronchitis—death.)—M. J., aged 42, was admitted into Lydia ward on November 28th, 1877, under Mr. Bryant's care. The family history was good, as also was her own. She had had small-pox and scarlatina, and was accustomed to a cough every winter, with expectoration, but did not spit blood. She was a married woman, and the mother of eight children. seven of whom were living. Her last child died two years before admission. The labour was long lasting from 2 a.m. on Sunday until 7 p.m. the next day. There was hæmorrhage during the whole time, and she was unconscious for several hours. Instruments were used to extract the child. Her catamenia since that time had been very irregular, pale, and extremely small in quantity. She had become much weaker. since her confinement. Her water had become thick, and there was also much pain accompanying micturition. When admitted, the patient was a healthy-looking woman, but weak and rather thin. On examination she had no noticeable abdominal enlargement, except a slight one behind, and in the region of the right kidney, behind which there was considerable tenderness on pressure. Urine normal in colour, specific gravity 1011, albuminous, having a large deposit, which proved to be nothing but pus. The pus was tolerably pure, and was not mixed with mucus. No renal casts were visible under the microscope.

December 5th.—On tolerably firm pressure, half-way between the umbilicus and anterior superior spine of ilium, a not very well defined lump was felt extending through to the lumbar region. Pain was felt at the anterior end of the lump and in the lumbar region. The lump could be moved between the fingers placed in front and in the loin. The urine was abundantly loaded with pus, the proportion of which had been increasing. The amount of urine had been decreasing in quantity.

9th.—A glass of urine was, on being left to settle, opaque with pus to within about half an inch of the top.

7th.—Swelling scarcely so apparent. The patient had ether administered, and Mr. Bryant made an oblique incision in the lumbar region, about three inches long, above the posterior part of the crest of the ilium, at the juncture of the lower third with the middle third of the distance between it and the last rib. The subperitoneal fat was cut down upon, and a directer passed into the kidney, when about two ounces and a half of pus were evacuated. Afterwards the finger was passed into the wound, and Mr. Bryant considered the finger penetrated into the pelvis of the kidney. The cavity was then washed out with a lotion composed of three drachms of the compound tincture of iodine to a pint of water, a drainage tube introduced and fixed by means of a silk ligature, and the wound strapped and dressed.

8th.—She vomited a little in the night, but did not sleep. She thought the pain was less since the operation. The pus in the urine had greatly decreased. The wound looked well, and there was very little discharge.

10th.—Pus had disappeared from the urine; there was slight discharge of pus from wound.

12th.—She felt pretty well; no bad symptoms except that her temperature was a litttle high.

13th.—Temperature 104°. She had great retching, without vomiting; bowels very much relaxed; one pint and two ounces of urine were excreted, specific gravity 1026.

14th.—Patient complained of burning heat over the abdominal parities, which could be distinguished easily with the hand. Temperature 102·8°. She was ordered pil. opii in one-grain doses. Urine ten ounces, specific gravity 1026.

15th.—Temperature 102·8°.

16th.—She was much worse during the night, breathing with difficulty; complained of great pain in side. She died about noon.

Post-mortem by Dr. Goodhart.—The ascending colon and cæcum were intimately adherent over the kidney and psoas muscle. The bowel was rather contracted. The supra-renal capsules were healthy, but the right was somewhat tough, embedded in fibrous tissue. The left kidney was large and weighed about nine ounces, white, mottled, and contained many cysts. The other was small and embedded in a tough mass of tissue; capsule firmly adherent and dense. The pelvis opened into the abscess described. There was a still unopened cyst in its lower part. The ureter was evidently dilated, so also the renal cavity as far as the brim of the pelvis, where it became matted up in a thick mass of fibrous tissue connected with the right ovary; it was traced along and found pervious to this part; then for an inch it was lost, being damaged in extraction; below the missing part it was again pervious, but not dilated. There was no broad ligament on this side nor yet on the other. All the parts were matted up together, and the ovaries were not found without difficulty. The uterus was healthy, rather large, and transeverse. The bladder was small, its mucous membrane red and velvety, and in a state of subacute cystitis. All the mischief looked like some old inflammation in both broad ligaments, leading to puckering of the ureters, and so to renal hydro- and then to pyo-nephrosis.—*Medical Times and Gazette.*

Acute Ascending Paralysis.—M. DEGERINE has announced to the Académie des Sciences the observation of changes in the anterior roots of the spinal nerves in cases in which a careful, naked eye, and microscopic examination revealed no lesion of the spinal chord. The method of examination employed was the hardening in osmic acid, and examination by means of picrocarmin. In each preparation a number of nerve-tubules presented the appearance of parenchymatous neuritis, fragmentation of the myelin in drops and

droplets, an increase in the protoplasm of each inter-annular segment, and multiplication of the nuclei of the sheath. In some of the tubules so changed the axis-cylinder had entirely disappeared. Most of the nerve-tubules presented no appreciable alteration. The same appearances were observed in each part of the chord. A similar alteration of some of the nerve-tubules was found also in the intra-muscular nerves of the paralyzed limbs. Attention is drawn to the point without much weight being laid upon it, and its relation to the disease may admit of some doubt when we consider how small a proportion the few degenerated tubules bear to the great amount of paralysis.—*Lancet.*

Cartilaginous Degeneration of the Capsule of the Spleen.—By W. F. MURRAY, M.B., Officiating Civil Surgeon, Gya.—On the 26th April last the body of a Hindoo, age about 60 years, was brought to Gya for examination. He was said to have fallen into a well. In making the *P. M.* I found a tendency to ossification all over the body. The cartilages of the ribs had become ossified; there was commencing ossification of the coronary arteries; there was atheromatous disease of the mitral valves, with thickening of the walls of the left ventricle of the heart. But the peculiar phenomenon which I met with was on examining the spleen, when I found *the whole external surface to consist of a cartilaginous plate about ¼ inch in thickness.* The remaining surface of the spleen was normal, and the substance of the spleen, except for some slight congestion. Signs which I need not enumerate showed drowning to be the immediate cause of death, but I thought this case worth sending to your journal, as I do not remember having ever heard of an exactly similar one.—*Indian Medical Gazette.*

Cessation of Epileptic Fits with Ultimate Cure.—Dr. SCHULTZ (*Berlin Klin. Woch.*) reports a case of epilepsy occurring in a sailor, 18½ years old, formerly healthy, who for a month had suffered from epilepsy. He had a fit regularly every mid-day. The usual remedies were

employed without the least benefit. The fit was preceded by weariness and a feeling of pressure on the chest, and was followed by several hours sleep. By the administration of a teaspoonful of common salt before the time for the fit, it was warded off for a week. By the continuation of this treatment (a teaspoonful of common salt every mid-day) the case was cured, at least, the patient at the time of publication of the case had had no fit for seven weeks.— [Quoted in *Centrallblatt f Med. Wissensch.*]

Report of a Case of Malignant Cholera —in which thirty-two grains of Chloral-Hydrate were hypodermically injected: recovery.—Augustus R. Hall, M. R. C. S., Eng., reports the following case in the *British Medical Journal*:

M. M., the wife of a soldier, a very spare woman, aged 30, the mother of four children, was carried to the Female Hospital, Fortress Gwalior, about three o'clock in the afternoon of October 27th, 1877, suffering from Cholera. From a statement subsequently made by herself, it appears that on that same morning she was feeling well till after breakfast. About 11 o'clock she felt uncomfortable and oppressed, and laid herself on her bed. She went to sleep, and, about 1 o'clock, woke up, and found that copious watery evacuations were literally flowing from her, and saturating her bedding. Vomiting and cramp soon set in, and her husband then sent for a *dooly*, and had her conveyed to the hospital. On admission she had the usual symptoms of well-marked collapse. The skin was cold, lips blue, eyes sunk, tongue and breath cold, finger-ends shrivelled, voice sepulchral ; the pulse could not be felt at the wrist, nor even in the brachial artery. As she was a very thin woman, it could have been easily felt there if it had been present. There were cramps in the hands and feet, and a good deal of vomiting, but not very much purging. The temperature in the axilla was 95.2 degs. Fahr. On examining the thorax by percussion, it was found that the usual area of cardiac dulness emitted a resonant sound. On application of the stethoscope, the beating of the heart could be scarcely heard, and at times seemed lost ; but respiration was detected over the part of the chest where the heart-sounds are usually perceptible.

Shortly after admission, one scruple of chloral-hydrate, dissolved in three ounces of water, was given by the mouth, but was rejected ; it was therefore determined to administer that drug subcutaneously at once. At 4 o'clock p.m., six grains of chloral, dissolved in sixty minims of water, were injected into the substance of the left deltoid muscle in the following manner : As the hypodermic syringe employed held only twenty minims, containing two grains of chloral, the point of the cannula was passed through the skin and into the muscle perpendicularly for about the depth of one inch ; the syringe was then emptied, and the cannula was withdrawn until its point reached the areolar tissue, but was not withdrawn through the skin. It was then thrust in a slanting direction at about an angle of forty-five degrees into another portion of the muscle. The cylinder of the cyringe was then unscrewed, filled with twenty minims of the solution, screwed on to the cannula, and again emptied. The point was then plunged into the muscle in an opposite direction, and twenty more minims injected. By these means sixty drops of the solution were injected into three different portions of the muscle with only one puncture through the skin, thus lessening the chance of irritation of the cutaneous nerves. These details are given thus minutely, as a strict attention to them is considered a very essential part of the method of treatment recommended.

Observations were taken with the clinical thermometer in the axilla every twenty minutes. Half an hour after the first operation, sixty more minims of the solution were put into the deltoid muscle of the right arm in the manner described above. The temperature in the axilla now began to rise steadily.—By 6 o'clock, eighteen grains of chloral in 180 minims of water had been injected through three cutaneous punctures, and the thermometer registered 97.8 degs. Fahr. The cramps had ceased by this time, and the vomiting was much less. Some serous evacuations had been passed.—At 7 o'clock, she passed a small quantity of urine. Four grains more chloral were injected into a muscle, the left pectoral.—At 8 o'clock, the temperature was 98 degs. Fahr.—Soon after 9 o'clock, she had a motion of serum

slightly tinged with bile. The pulse was now felt for the first time in the brachial artery, and the heart-sounds were louder. She complained of intense thirst all the time, for which she had as much cold water to drink as she liked, quite irrespectively of the vomiting ; at times, she had a little soda-water for a change. On a few occasions, the water she drank was slightly acidulated with dilute sulphuric acid. This she liked, at intervals, as she said "it cleared the mouth".—At 10 o'clock, the temperature fell a little, being recorded at 97.8 degs. Fahr. ; and, shortly afterwards, six grains more chloral were injected into one gluteal muscle.—At midnight, four more grains were injected into the other gluteal muscle ; so that, within eight hours, she had thirty-two grains of chloral injected altogether.

At 4 o'clock a.m., (Oct. 28th), the temperature was marked 98.2 degs. Fahr., and she had some sleep. The liquid motions were now pretty well covered by bile.—At 7 o'clock a. m., the pulse could be felt in the radial artery, 82 per minute ; respiration 20. She was drowsy, apparently from the effects of the cholar, but could be easily roused, and answered questions. The voice was still very sepulchral and eyes sunk ; tongue and breath not so cold. She was drinking water continually, most of which she retained. The temperature, which was now taken every two hours, varied between 97.4 and 98.2 degs. Fahr.—At 1 o'clock p.m., she passed some urine. Liquid bilious stools were repeatedly passed during the afternoon.—At 6:30 p. m., she said she would like "a good sleep", and one scruple of chloral in three ounces of water, and some syrup, was given by the mouth, which she kept down. She had 2 hours' sound sleep. At 8:30 p.m., the temperature was normal ; she had, altogether, a good night. The urine that she passed was tested, and found to contain a quantity of albumen. The heart-sounds had gradu ally became normal.

On the sixth day after the attack, the temperature rose to 100.6 degs. Fahr., but never higher, so that she can hardly be said to have had any secondary fever. Some quinine, however, in five-grain doses was given, but more as a precautionary measure. She was fed with plenty of milk, chicken-broth, and beef-

tea, when reaction was established, but had no stimulant whatever until a few days before she went out of the hospital (on November 13th), when a little brandy and soda-water were allowed. At the places where the injections had been given, there was a little superficial redness and tenderness for a few days; but some mild arnica lotion was applied to the skin, and no further inconvenience resulted. She made a very good recovery; and, more than four months afterwards, is in good health, and has shown no ill effects whatever on the result of the disease.

REMARKS.—Although the particulars here given are only those of a solitary case, still they may be worth publication in the pages of the *British Medical Journal*. At all events, they apparently show, that a very considerable quantity of a powerful vascular depressant, like chloral-hydrate, can be introduced into the system during the cold stage of cholera without doing any harm. And this, taken in conjunction with the fact now generally recognised, that alcoholic stimulants do positive injury in that stage, may give some indication as to the correct principle of treatment that is required.

Without going into the different symptoms enumerated above in this paper, the writer desires to invite particular attention to two of them, viz., the resonant sound emitted by the usual area of cardiac dulness, and the almost total absence of the sounds of the heart, and ventures to give the following attempt at an explanation of their causation.

From personal experience of an attack of cholera, the writer feels convinced that at the commencement the contractions of the heart become more forcible, the calibre of the arteries become smaller, and there is generally increased arterial tension, probably caused by excessive stimulation of the vaso-motor centre. As the cold stage becomes intensified, the spasm of the muscular walls of the heart is so strong that there is almost a continuous systole, the diastole not being allowed to take place so as to dilate the cavities as in health. It, therefore, occupies a smaller space than usual, and the first sound is only faintly heard, the second being indiscernible. Then, the whole of the arterial muscular fibres being also in a state of contraction, it

has occurred to the writer that the heart may be pulled upwards and backwards to a slight extent by the aorta, thus allowing a portion of the lung to occupy its usual position. We are told by minute anatomists, that the small arteries are very contractile, and that the large ones are very elastic, but possesses little contractility. But it may happen, that the intense stimulation to which the aorta is thus supposed to be subjected, may cause it to contract the heart in the manner indicated. The heart, therefore, may be so contracted, and occupy such a much smaller space than normal, that a portion of the lung may get in front of it, and occasion the resonant sound heard on percussion.

However, whether this may be an approach to the truth or not, the fact may be tested repeatedly, that, in deep cholera collapse, the heart-sounds are not heard. There are, in addition, the cold skin, and no pulse, or very little, felt in the usual localities. Now this state might be brought about if the heart were in a state of diastole when there would be true syncope. But if this were the actual condition in cholera, it may be affirmed that alcohol would do good instead of harm ; as it is universally admitted that, where there is real atony of the heart, alcoholic stimulants produce a temporary benefit. But if, as is supposed here, the heart be in a condition of almost continuous systole, not dilating sufficiently to allow much blood to enter its cavities from the gorged veins, and the arteries be so reduced in diameter as not to allow that little blood to flow properly through them, then the administration of alcohol would, it is presumed, do harm, which experience has shown to be the case. Hence, apparently, a state of pulselessness may be produced by two opposite conditions : in one of which, where there is syncope, stimulants do good ; in the other, as cholera collapse, they do absolute harm.

Turning now from theory to practice, there are a few points which must be attended to by those who may use chloral subcutaneously in cholera. The strength of the solution employed may be laid down at one in ten ; if it be stronger than this, it will probably cause great irritation, ulceration, or even sloughing (as it has done in some cases). Besides, if the

specific gravity of the solution be too high, it will probably not be absorbed as it ought to be.

Then, as to the mode of injecting: it is most strongly recommended that the solution should be put, not merely under the skin, but into the substance of a muscle. In cholera-collapse, where the skin is cold, absorption may be said to be reduced to a minimum, and the drug employed may lie inert, if it be not introduced as deep into a muscle as is consistent with safety Mr. Higginson, lately chief surgeon of Kheri, in Oudh, in his report of cases treated by him, published in the *Supplement to the Gazette of India*, February, 14th, 1874, of which seventeen out of nineteen recovered, writes, "The injections were made in the arms and thighs, the cannula of the syringe being plunged pretty deeply into the flesh"; and, in a letter to the *Indian Medical Gazette*, which appeared in the October number for 1873, he writes, "I think it is essentially necessary to plunge the cannula deeply into the flesh; merely inserting its point underneath the skin will not do." It does not appear, even after this advice, that this precaution has been taken by those who have used chloral hypodermically.

In conclusion, the writer emphatically recommends the following course of treatment in cholera. When premonitory diarrhœa is observed, let all alkalies and opium be specially avoided, as well as alcohol. Dilute sulphuric acid, in half a drachm to drachm doses, in a bottle of gingerade or some syrup and water, diluted as much as will only give a strong, but not disagreeably acid flavour, will probably be found the best thing to take, as often as may be required.

If collapse should set it, or the patient be first seen in that stage, inject at once. Let the clinical thermometer determine the amount of chloral to be administered. The lower the readings, the faster the injections. It may be yet proved, in very severe cases, when the temperature is down nearly to 90 degs. Fahr., that as much as one drachm of that drug may be necessary before a decided effect is produced. Take frequent observations with the thermometer, and be guided by it. Give the patient plenty of cold water (no ice) to drink. Never mind if

it should be rejected ; it relieves the great thirst. But do not, under any circumstance, give any wine, spirits or opium. We sometimes hear of the sedative action of opium ; but, perhaps, this term may tend to mislead as to its real therapeutic effects. Poisonous doses of the true sedatives, as pointed out many years ago by Dr. Headland, produce death by syncope. Opium causes death by coma apnœa It is a stimulating narcotic, according to Dr. John Harley.

Should reaction be established, milk, nourishing soups and broths, and afterwards more solid food, may be constantly given in gradually increasing quantities. Not even then it is recommended that alcohol be prohibited until convalescence is assured.

If secondary fever should manifest itself, then quinine, according to circumstances, by the mouth, or hypodermically, if the stomach will not bear it. The neutral sulphate is now always used in India for injections. Again, let the clinical thermometer be the guide ; the higher the body-heat, the more quinine.

The writer earnestly begs those of the readers of this paper who may have opportunities to carry out all the details recommended above, and hopes, in spite of adverse statements, that the treatment advocated may be attended with success. At all events, he trusts that these remarks may be the means of inducing medical men to give the method a complete trial, and that reports that may be published before long may settle definitely the question whether in chloral-hydrate we have, or have not, a remedy of efficacy in malignant cholera.

Ruptured Pericardium ; Fractured Pelvis, and Ruptured Urethra.—(Under the care of Dr. PUZEY)—R. M., aged forty-eight, was admitted on Feb. 27th, 1878, having been knocked down and crushed by a bale of cotton striking him on the back. The diagnosis was, fracture of both pubic bones, with rupture of membraneous urethra. There was considerable hæmorrhage from urethra ; extravasation of blood slight. He complained of great pain in the cardiac region ; and had an incessant painful cough and a markedly anxious expression.

A broad belt was firmly applied round the pelvis, a gum-elastic catheter was tied in the urethra, and a stimulating expectorant mixture was given.

For a week after admission there was considerable rise of temperature. Examination showed slight pneumonia. The patient would take only warm fluids. The catheter was removed on the 6th March, and he could then pass water without difficulty. Temperature became quite normal on the 10th March, and continued so until the 25th, when pleurisy and pericarditis developed; and he died on the 27th, a month after admission.

Necropsy.—Thorax: There was recent pleurisy in both pleuræ. The right side contained six ounces of serum, the left three ounces, and there were effusion of lymph over a large extent of both lungs. There were œdema and congestion of the lung. The pericardium showed evidence of a rent through the whole length on the left side. The state of parts was as follows: On removal of the sternum nothing abnormal was noted, but on trying to raise the anterior part of the left lung from the pericardium, it was found to be adherent by its anterior margin, and anteriorly was thinned out and insinuated around and behind the apex of the heart. These adhesions were readily broken up by the finger, and then entire absence of pericardium proper from the left side of heart was manifest, and the internal surface of left lung acting as pericardium. It was now seen that the anterior margin of the left lung had adhered to the retracted right border of the pericardial rent; and that the left side of the ruptured pericardium appeared as a band three quarters of an inch broad, running parallel with the long axis of the body, behind about the middle part of the heart, and presenting a free border. The portion of lung pleura in contact with the left side of the heart had not undergone any alteration in appearance. In this improvised pericardium there was over an ounce of turbid serum, and there was a layer of recent lymph on the heart and parietal surfaces.—Abdomen: There was fracture of both pubic bones, each being separated into three pieces, and the pubic part of actebellum was fractured without displacement. Union was pretty firm, and there was a large amount of callus. There was separation of the left sacro-iliac synchondrosis, with fracture of the left ala of the sacrum. There was blackening of all the parts in false pelvis. A clot lay behind the posterior wall of the membranous urethra, and there was evidence of slight rupture in the posterior wall. The kidneys together weighed 12 oz.; the liver 4 lb., and was fatty.—*The Lancet.*

CANADA

Medical and Surgical Journal.

MONTREAL, OCTOBER, 1878.

THE RECOGNITION OF COLONIAL DEGREES.

Legislation in Great Britain in matters medical has so far miscarried, that recognition of Foreign and Colonial degrees is for the present deferred. To this we do not take exception. While we believe it politic to recognise degrees hailing from the institutions of this Dominion, we do not regard it as so urgently necessary as to demand immediate action without due and careful consideration.

We have heard arguments against colonial recognition, urged with the utmost narrow-mindedness, this, in a great measure, proceeding from an absolute ignorance of the nature and character of our institutions, sometimes even of their geographical position.

The mistiness which exists in some British minds touching anything American or Canadian is very surpassing. Especially is this the case in the present day when the means of transit to and fro have been so facilitated that a man can run over the entire continent of North America, almost from the pole to the southernmost point of the Gulf of Mexico, and from the Atlantic to the Pacific, and return to his native Island home, in a surprisingly short space of time, without much fatigue, and at comparatively trifling cost. The manners and customs of a people,

and the character of their educational system are better learnt by personal intercourse than by any amount of book lore.

We are all working in the same groove, all anxious to elevate the standard of our profession for the benefit of the human family, but we doubt much if this result will follow a systematic abuse and misrepresentation of schools and colleges, of which frequently the self-imposed authority has no absolute knowledge. It is painful to observe the repeated *gaucheries*, perpetrated by the medical press and by contributors in the way of correspondents. There are many facts connected with Canadian Universities which are entirely ignored, whether unintentionally or with a direct object we cannot say.

The Canadian Universities, three in number, in this Province, all hold Royal charters, and the privileges granted under these charters are the same as those granted to the Universities of the Mother country. Where then lies the difference? The preliminary examinations are equally stringent, the curriculum of medical study is the same as that in British Universities and Colleges, and the professional examinations are a literal copy of the method of testing the candidate followed by those institutions. In nearly all our schools the professorial chairs are held by British Graduates. But to add to the security of the public that the work is systemmatically and faithfully performed, the Provincial Medical Board have introduced, under act of our Local Legislature, a method of visitation. Two members of the College of Physicians and Surgeons of the Province of Quebec, are appointed by the Board to visit and attend the Medical examinations of the various Universities, Colleges and incorporated medical schools of the Province, and who shall report to the Provincial Medical Board upon the character of those examinations. Those visitors or assessors cannot be chosen from among the teachers or professors of any of the Universities, Colleges, or Medical Schools. Laxity in the work done, in the examination of candidates, if reported on, the Provincial Medical Board has the power to refuse registration of the degree or diploma of the institution so reported against, until such a method of examination shall have been amended.

This is the law as it exists in this Province and as it is administered. In what relative position do the institutions of Great Britain stand with reference to this law? Graduates and Licentiates of the Universities and Colleges of Great Britain and of France are admitted to registration on what their credentials set forth, without examination. The Act is so far liberal that, although it compels visitation to our own colonial schools, it accepts in good faith the examinations of British and French schools without question. But, although this is the practical working of this local act, it may not be retained in its present integrity. There is a growing interest, a desire to have the institutions in this country recognized for all they are worth. We should be sorry to have to chronicle any change in our law, with a view to ignore all foreign degrees—be they from Great Britain or elsewhere. Such a scheme was proposed, but did not carry; it might be again brought up and become the law of the land.

It should be remembered that in all matters of educational interest, we possess the right of legislating for ourselves. We should be very sorry to see any such system of exclusion adopted, yet it must be confessed that nothing is more likely to follow, if a good lead is given us, the exclusion first coming from the other side. Each year we become of greater importance on the world's face, because we are a growing country, with abundance of room for a population of forty times our present limit. The country is being steadily but gradually opened up and there are local interests at stake which will without doubt in time attract attention. Our youths can not be shut out from serving their country or fellow man in any capacity. If, through the enterprise of Canadians, lines of steamships are established between Canadian ports and those of Great Britain or any other country, it would be hard indeed to refuse service to a young Canadian surgeon, simply because he did not hold a British qualification. Yet this has been done, but we trust will never be again repeated.

CANADA

MEDICAL & SURGICAL JOURNAL

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Original Communications.

INTRODUCTORY ADDRESS, ON BEHALF OF THE MEDICAL FACULTY, McGILL UNIVERSITY,

October 1st, 1878.

By Thomas G. Roddick, M.D.,

Professor of Clinical Surgery.

Gentlemen,—In compliance with a custom honoured by time and sanctioned by experience, I am here to-day on behalf of my colleagues to extend a warm and hearty welcome to the students of this Faculty; and at the same time to offer to you who are beginning, and to you who are resuming your studies, some words of advice as to their management. To many of the latter among you the "introductory" is a thrice-told tale, so that my remarks will be directed in great part to those before me who are about to enter upon the study of medicine, or who, at all events, occupy these seats for the first time.

And first allow me to congratulate you on the choice of a profession, for, while it is one of the most laborious, and the most self-sacrificing, it ranks amongst the noblest, the most important, and at the same time the most interesting of all the occupations to which the highest human endeavors are turned. Although you will never, from the pure practice of medicine, amass the enormous wealth of many who engage in trade, still a fair compe-

tency may always be yours, and a share of that worldly distinction of which all are more or less ambitious. You have a great and glorious work before you, namely, to relieve suffering, and to put back death,—and see to it that you prepare yourself well for the fight, else your defeat is certain, and may be most disastrous. When it is considered what dire consequences may follow even a comparatively trifling error in the practice of medicine, is it to be wondered at that teachers show such anxiety to be thoroughly understood, and that examiners often appear so exacting? They feel, and most naturally too, the grave responsibility of their respective positions; and between them and the public a tacit understanding exists, regarding the qualifications of those who are to minister to their wants when laid low by accident or disease.

You are fortunate in entering upon the study of medicine at this time. Medicine is advancing with gigantic strides in every direction; connections with the kindred sciences are being made daily, new lines of enquiry are being opened up, and problems hitherto not dreamt of are pressing forward eagerly for solution, so that the hum of a busy and fruitful activity is pervading all its ranks. Medicine is acknowledged on all hands to have made a greater advance in the past twenty years than in the century before. Men representing every department are now busily at work. Where before chemists and physiologists alone occupied the dark lanes of research, we now find the agents of pathology and therapeutics pushing eagerly forward in the van, and with the aid of experiment, wiping out old and fusty traditions. The latter, especially, which has been well-likened to a lazy boy always lagging behind his fellows, will ere long have burst the rusty bars that confine him, and reach that seat in the science of medicine that has been vacant so long. You may plead, and with some reason, too, that on account of these advances, the work in store for you will be greater than that required of your predecessors. That is true, but only in part, for whereas the amount of ground to be surveyed is now-a-days greater in extent, the facility and accuracy of research have more than proportionately increased. What would your

predecessors of even ten years ago, not have given for a taste of the opportunities in store for you in connection with the subject of physiology alone! Whereas they had to be content with rough plates and diagrams in the elucidation of those great functions on which life depends; these will be made clear as noon-day to you by experiment, and by the use of the microscope, and other physiological apparatus.

Your curriculum, certainly, has a formidable appearance, judging from the number and extent of the subjects it contains, but these will be found to blend or dovetail the one into the other so intimately that after a time the work becomes less onerous than it appears at the first glance. The business before you is undoubtedly great, but not greater than may be effected with pleasure and confidence. As you will doubtless have gathered from the annual announcement of the Faculty, certain changes have been made in the programme of the course, to come into operation this session. It is to be hoped that students will fall in with the new arrangement, as, in the words of the announcement, by means of it "a certain definite amount of work must be accomplished in each year, and, moreover, an equitable division is made between the Primary and Final branches." The subjects which will especially engage your attention during the first two years of your studentship are Anatomy, Physiology, Materia Medica, and Chemistry.

Anatomy should remain throughout as one of the great central subjects of your medical studies. It has been well represented as the keystone of the arch, touching at the same time both halves of your work—medicine on the one hand, surgery on the other—and sustaining the whole superstructure securely in its place. You will learn your anatomy from lectures delivered in the class-room, and from the Demonstrators in the dissecting room, but in truth the latter is the place where you get a really practical knowledge of the subject. The Professor of Anatomy teaches you where the various structures and organs of the body are to be found, and their relations, &c.,—in the dissecting-room you make them out for yourselves and handle them. Not the least part of dissecting, by the way, is the handling of the

healthy tissues, among which you are working, as then you are in a better position, later on in the course, to recognise diseased structure as met in the autopsy-room. Do the work faithfully. In dissecting a muscle be not satisfied merely with seeing its belly, but trace it to its origin and insertion, and verify your observations by constant reference to the skeleton. Combine a little surgery with your anatomy. Study out the actions of muscles, so that you may be able to appreciate fractures, their deformities, the means by which they are produced, and the mechanism by which they might be overcome. Make out for yourselves where the main arteries can be tied with greatest ease, and you will find invariably that there the surgeon also would look for them, in his endeavour to arrest hæmorrhage or close up a diseased vessel. Study the various regions of the body, such as the neck, the armpit, the groin, the ham, &c. The anatomy of the joints—their various hollows and prominences—should receive your special attention. Make constant use of the black-board, and if you have any taste for drawing by all means cultivate it. Make outline sketches of your dissections and complete them at your leisure. Every stroke of your pencil or brush will help to fill another pigeon-hole in your memory. There can be no doubt that a careful drawing of a well-prepared dissection will save hours of book drudgery, and must lead to clear and accurate ideas. But it is later on when you come to deal with morbid growths, deformities, &c., that this accomplishment will be found of the greatest service. I may appear to lay unnecessary stress on this subject, but I feel so strongly regarding it, that I hope the day may come, and soon too, when there will be a teacher of drawing and painting in connection with every well-equipped school of medicine.

As anatomy is the keystone, so Physiology is the chief cornerstone of rational medicine. It is now generally conceded that there can never be a great physician who is not at the same time a good physiologist. Devote much of your time then to physiological research. Save up your pocket money and buy a microscope, so that you may be enabled to work up at your leisure the subjects that will be brought before you from time

to time in the lecture-room and in the laboratory. Never lose an opportunity to compare diseased with healthy structures, for then morbid anatomy will be receiving its just share of your attention.

Chemistry, theoretical and practical, is a subject that will interest you much, although its area is now so vast that it is hardly possible for the student to obtain a knowledge of the whole. It will be found indispensable in your study of Physiology and Materia Medica, in the momentous questions of Forensic Medicine, such as the detection of poisons, &c., and in the examination of secretions at the bedside. I would earnestly advise the study of the laws of light, heat and electricity, as they will be found later on to occupy prominent positions in the treatment and diagnosis of disease. The importance of electricity and galvanism as therapeutic agents for the relief of pain, and the restoration of use and feeling to paralyzed parts, is now fully recognized.

Materia Medica with its important department of Therapeutics will also demand considerable attention at your hands. It is to be regretted in this connection, that the old system of apprenticeship has passed away, as then materia medica was imbibed as it were insensibly; by constant handling one got to know the colour, taste, smell, and a hundred other qualities of drugs. It is to be hoped that the present requirements of the faculty regarding Practical Pharmacy, will meet with an earnest response from you all. Some knowledge of Botany and Zoology will be demanded by our esteemed Principal, but while a fair idea of either of those subjects is expected of you, it is not desirable that they should engage so much of your attention as to exclude the more important, and purely professional work. While here may I be allowed to express the hope that as the general education of the student of medicine continues to improve (and the improvement has certainly been vast within the last few years) these may with benefit be placed in the list of subjects for preliminary examination.

By following the course thus laid out for you, you plant deep and firm a scientific ground-word for the study of those

disorders of structure and function, which is to be your ultimate special work. It should be one of your chiefest aims to combine in proper proportion, science and art. It would be a mistake in a man who aspired to becoming a practical physician to devote all his time to the study of chemistry or physiology alone; but the abuse of a thing is no argument against its proper use, and it will invariably be found that he is the best practitioner in the end who builds on such a foundation as the due study of the subjects I have just reviewed alone can give. The mere practical man will be found full to overflowing of false pathological theories which often form the basis of a mischevious treatment.

As your object then is not to become anatomists, physiologists, or chemists alone, but physicians and surgeons, your next place is the wards of the hospital—that "romantic region," which will be found to have its charms for all—young and old. Here your faculty of observation will be brought fully into play—not that restless prying curiosity that begets disappointment and disgust, but a calm, careful searching after facts that only habit can engender. "You don't know" as a recent novelist has aptly put it, "that you are forming a habit; you take each act to be an individual act, which you may perform or not at your will; but all the same the succession of them is getting you into its power; custom gets a grip of your ways of thinking as well as your ways of living; the habit is formed and it does not cease its hold until it conducts you to the grave." The habit of observation is not intuitive then; it has to be acquired. The younger of you will spend your time most profitably in the out-patient room of the hospital, where you will learn what a wound is and how to dress it; what an ulcer is and the various methods of treatment. You will have an opportunity here also of studying the commoner forms of fracture, and the application of dressings for their relief. Occasionally visit the Ophthalmic room, where under the present able management there is much to be learnt by the youngest of you in connection with the diseases of the Eye and Ear. Do not attempt too much, however. The medical cases will yet only puzzle and fret you, so that I should advise

you to avoid them until you are better qualified to appreciate them. In the meantime stick to those things that you can see and handle, and your pleasure and satisfaction will be great.

Gentlemen of the Graduating Class, I would remind you that the days of your studentship are rapidly drawing to a close; and it is to be sincerely hoped that you will make the utmost possible use of your opportunities for acquiring that practical knowledge which is so essential to your future success. Let your labour be well directed, and then the least gifted among you may expect reward. Buxton says: "The longer I live the more I am certain that the great difference between men, between the great and the insignificant, is energy, invincible determination, an honest purpose once fixed, and then death or victory." It is one of the greatest improvements in the medical teaching of the present day, that practical instruction is carried to such a high pitch. This is not done to the exclusion or detriment of systematic teaching, but the one is made a help-mate of the other. Thus the facts you gather from the systematic chairs of medicine, surgery and obstetrics, are all more or less capable of verification and illustration at the bedside. You are admonished then to be much in the wards. It is there that you educate your senses to appreciate the signs of disease. You cannot too soon get into the habit of examining patients for yourselves, for this is really to be your life's work. Touch, handle, listen wherever you can; see everything you can see with your own eyes, do everything you can do with your own fingers. In a word, practice the habit of minute methodized observation. Any notes you may have to make should be jotted down at the time of observation, else they hourly become of less value. Record your observations in the fewest words, and in the plainest terms. I would here remark that while it is not practicable for every student to become a clinical clerk, the cases are in a manner the property of all, so that all are encouraged to report, and the clinical teachers will be ever too happy to render any assistance in their power. Despise nothing, however insignificant, that can in any way improve your knowledge. It is a mistake too often made to run after sensational

cases,—curiosities which are seen perhaps once or twice in the course of a long practice. The patients who are most likely to consult you in your early days of practice, will in the majority of instances suffer from those ailments, which perhaps in your student days you looked upon as trivial and unworthy of your consideration. "It is only an abscess," one student was overheard to say to another with regard to a case on which some remarks were being made, and which he did not condescend to examine with the others of the class. It became necessary in a very short time after to examine this gentleman for his degree. Among the cases presented by the clinical professor was one identical with that which he had so indignantly spurned. He failed to make it out. Its only an abscess said the examiner and then after reminding him of his indifference, proceeded to give him some friendly advice on the subject of "little things," which I happen to know has not been entirely forgotten. Even, if it be only an abscess, then, gentlemen, don't despise it. I urge you to be open to receive knowledge by every avenue; never despise any method of inquiry, however minute and apparently unpractical, which may throw light upon the nature of disease; every appliance or new mode of procedure introduced with a view to making diagnosis more exact, should at any rate receive fair play at your hands. When medicines are prescribed note accurately their actions, for in this department we are all humble observers. The actions of many drugs and other remedial agents, are, as you know, very imperfectly understood. As Professor Rutherford puts it, this is the department that hangs fire, and so retards our progress. Note especially the actions of those new remedies which are now on their trial. Above all things I would entreat you during your practical observations not to deceive yourselves. By this I mean, never persuade yourselves that you understand or see what really you do not understand or do not see. In other words do not play tricks with your own senses, else intellectual ruin is your certain fate. When you are asked to see your stethoscope, or ophthalmoscope, or laryngoscope, never desist, never be satisfied, until you

have, at all events, made out something of the nature of what you hear or see. Remember what Shakespeare says:—

> "To thine own self be true;
> And it must follow as the night the day,
> Thou can'st not then be false to any man."

In order that the scheme of practical instruction shall be successful, the teacher must have the cordial co-operation of all his class. Speaking on this very subject that prince of clinical teachers, Dr. Murchison, makes the following remarks, and these will suffice to make clear my meaning.

"The student who comes forward before the whole class is not only taught himself, but he himself becomes a clinical teacher. His difficulties, his suggestions, and even his mistakes become the means of teaching the rest of the class. The blunders you make show you how to avoid them for the future, and in the meantime furnish me with a capital opportunity for clinical remarks.

You are to bear in mind that the best and most experienced Physicians are constantly making mistakes in examining patients, and in the diagnosis of their diseases.

Although a mistake sometimes excites a smile or laugh, the students who laugh most are usually those who do not take part in the examinations themselves, and are the least entitled to laugh. It often happens that they who make the most mistakes at first, in a few months turn out to be the most expert observers."

Let us help one another then, Gentlemen. In the department of Surgery, for instance, we are now especially in need of all the assistance you can bring us in our endeavour to carry out that system of treating wounds which is destined to supercede all other methods. The originator of this system is to-day but a humble observer, so that it may be in store for any of us to throw that additional ray of light which alone is wanted to perfect that stupendous scheme, in the consummation of which I sincerely believe with a recent American writer, that the name of Joseph Lister is destined to outrank in medicine all

of his century, not even excepting the discoverer of anæsthesia.

In the midst of your anxiety to acquire knowledge, I would ask you never to lose sight of the respect and sympathy due to the sick and afflicted. Now is the time to cultivate that tenderness, not only of touch but of heart that marks the true physisician. Remember how sensitive are the feelings often of those deprived of health, and how much pain is oftentimes caused to them by an inconsiderate word or deed. Even as students then, you have it in your power to lay under contribution the affections of those whom accident or disease has for the time brought in your way.

When human skill no longer avails, and death terminates your case follow it to the autopsy-room, and compare there the post-mortem appearances with the clinical observations you may have made. It is impossible in our day to over-estimate the value of pathological research, and I am happy that the opportunity here offers to state how far we in this city have advanced in that department of medical instruction. We have it from one whose opinion we all value highly, "That there is no autopsy-room in London in which the post-mortem examinations are so well or so systematically conducted as they are in our General Hospital."*

Having in my imperfect way taught you how to work, the next task, which you might with all fairness impose on me, is to teach you how to rest. One method by which you can always obtain mental repose is to vary your "mental diet." Prolonged application to one study is certain to weary the brain, as one set of muscles become tired out by a continuous strain. You will often find great relaxation and pleasure in the perusal of books other than those connected with your professional work. It is said of the great diplomatic chieftain, Earl Beaconsfield, that after a severe mental strain he has recourse to the reading of light literature as a recreation. While I do not advocate novel reading, I believe there are many novels which might be read with profit by us all. "Every kind of

* Letter from London.—CAN. MED. JOURNAL.

literature," observes a thoughtful writer," comes into play some time or other; not only that which is systematic and methodized, but that which is fragmentary—even the odds and ends: the merest rag or tag of information." The exercises connected with your Medical Society, which I would strongly advise all students to join, are of the nature of a recreation. Take a moderate amount of physical exercise daily, always stopping short of fatigue. The body as well as the mind has rights which must be respected. We may cheat ourselves but we cannot cheat nature. "Because she lets us overdraw our accounst for many years, we fancy the accounts are not kept, but depend upon it she is a zealous creditor, who is sure in the end to exact with compound interest every loan she makes of us; and if we continue borrowing for work the hours that are due to sleep, although we may postpone a settlement for years, the final and inevitable result will be physical and mental bankruptcy."

In conclusion, Gentlemen, I exhort you to work earnestly and honestly; to be kind and charitable one to another; and to be temperate in all things.

"Come wealth or want, come good or ill,
Let young and old accept their part,
And bow before the awful Will,
And bear it with an honest heart.
Who misses or who wins the prize,
Go lose or conquer as you can,
But if you fall or if you rise,
Be each, pray God, a Gentleman."

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PRESIDENTIAL ADDRESS,

DELIVERED BEFORE

THE MONTREAL MEDICO-CHIRURGICAL SOCIETY

ON OCTOBER 18TH, 1878.

By Henry Howard, M.D., M.R.C.S., Eng.

Medical Attendant to the Longue Pointe Lunatic Asylum, P.Q.

Gentlemen, Confreres, Members of the Montreal Medico-Chirurgical Society,—It is hardly necessary for me to assure you of my deep gratitude for the high honour you have conferred upon me in electing me your President for the ensuing year. Yes, Sirs, I feel it to be a very great honour, I feel that no greater could be conferred upon me by my confreres than that of placing me at the head of a society that is recognised as representing the Medical profession of this city, and indirectly, the profession throughout the Dominion of Canada.

But while I feel proud of the honour thus conferred, I feel somewhat humiliated by the conviction, that I have been chosen by this society, not because of my ability or talents; not because there are not men amongst you who stand head and shoulders over me in the knowledge of medical science; but because from your kindness of disposition, your truly liberal spirit, so well becoming members of your most liberal profession, you thought it meet to pay a tribute of respect to so old a member of the profession, to so old a friend—for many of you I have known from early childhood.

Ours is a profession that receives but few honours from either hereditary Sovereigns, or the sovereign people, for, when honors are distributed, very few fall to the lot of medical men. I speak of honours: I might go further and say seldom do we even meet with gratitude. We may labour mentally and physically, from youth to old age, to attain the knowledge of assuaging pain and suffering in others; to restore to health the sick and dying father of a family, or the mother prostrate with disease; we may by our tender, watchful care and skill, dry the eyes of

the heart-stricken mother by restoring to her tender embrace the child that she hung over for weeks, hoping against hope; we may restore the raving maniac from a state worse than death, to be again clothed in his right mind. We may burn the midnight lamp, and literally wear out our lives in discovering natural laws, that society may reap the benefit; all these things, and much more, may we do, but let us not in return expect any honour from society. It is not for those things that society with a generous, I might almost say, with an insane, impulse, rushes forward through her thousands of representatives to feast her heroes. No, gentlemen, society's heroes perform a different sort of deeds, are a different stamp of men than those to be found in our liberal profession. Therefore it is, gentlemen, as in the present instance, so very pleasant, knowing that we differ from that stamp of men, to receive honour from men who give it to none except those whom they believe to be worthy recipients, and in honouring whom they honour themselves; and I hope and trust that this kindly and liberal spirit which prompted you to elect me as your President, may always shine out clear and brilliant in the actions of the members, collectively and individually, of the Montreal Medico-chirurgical Society.

Gentlemen, the first notice I had of the bonour you had con ferred upon me was given me by my friend and first Lieutenant, your Vice-President, Dr. Ross, who, after congratulating me and witnessing my surprise, brought me back to myself by reminding me that I was in duty bound to give a presidential address. I began to consider what I would say, what I would talk about. I thought to myself it will be no time to speak of mental science, and even if it were, I am afraid that I have from time to time rather bored the society with that subject. So I made up my mind to make a few remarks more applicable to the time and circumstances. It has been a matter of regret and surprise to me to see how seldom our regular meetings are attended, with some honourable exceptions, by the older members of the society. It is hard for me to find a cause for this coldness. Of course, I can only judge of others by myself, and as for me, I look forward to our regular meetings with as great

pleasure as the young man or maiden looks forward to the ball and dance. And although I have been a student all my life, and have laboured hard for forty years to keep pace with the progress of our profession, yet have I never attended one of these meetings, that I did not return home a wiser and a better man. I say better, advisedly, for the more we increase in wisdom the better must we be; and very much of this wisdom have I learnt from, to me, very young members of the Profession. But if the older members feel differently from me, which I very much doubt, then they should attend these meetings that by their presence they may give encouragement to the younger members to persevere in their work, to hold fast to scientific truths, and not to be disheartened; to tell them that the hard thorny road they are travelling has been trodden by themselves, and that if they had reached the goal for which they had laboured, it was by hard work and after repeated failures. I say, if for no other reason than these, the older members of the society who have so justly earned their recognised honours, should give us, at least occasionally, the light of their countenance. Consequently I do hope and trust that during the year we have entered upon, we shall have a better attendance at our meetings from the older members of the society.

In addressing the younger members, I would most respectfully suggest that they should attend these meetings a little more punctually, and that they should show a little more enthusiasm in all things connected with their profession. The assembling of ourselves together, and exchanging our views on scientific subjects must be of great benefit to us all, and particularly so to the young practitioners, who thus learn from the experience of their elders. Besides they become not only better known to one another, which has its advantages, but they are observed by the older members, who note if that they are working men, and remember it at a convenient season. Again, associating with men presumably of more knowledge and experience than ourselves, smoothes off the rough corners of our nature, and makes us have more charity and kindly feelings, not only to one another, but towards the whole human race. Yea,

even to the very worst samples of humanity. It also makes us humble in our own estimation, which is a great step towards acquiring knowledge. There are thousands upon thousands of persons who don't know enough to know their own ignorance. Had these persons associated with men of intellect and talent, they might be very different from what they are, narrow-minded bigots, prejudiced fanatics, the *betes noires* of society. You see, then, that we derive many advantages from associating with one another. I felt much disappointed that I was not able to be present at our annual meeting, particularly as I wished to hear the *resume* of the procedings of the past year from our very able retiring President. I hope, gentlemen, that during the year upon which we have entered, we will make it a rule never to adjourn till we have arranged who shall read a paper on the ensuing evening of meeting. I would beg of the young men not to be backward in this particular. A young man will find it a great means to improve himself in medical science, to carefully record his cases, and prepare from them a paper to be read before this society. Another important subject, indeed one of the greatest interest to us all, is that of *pathology*. I have a very lively recollection of the pleasure we received, and the instruction derived from the many pathological specimens brought before the society, at different times, during the past year. May I hope that there will be no lack of pathological specimens during the present year.

I wish, gentlemen, that in *one* respect I could inspire you, and the whole Medical profession throughout the world, with my conviction that there is no profession, no calling in life, more high or more honourable than the Medical Profession. What higher course can a man pursue than the study of man? To study him anatomically, physiologically and pathologically, from the time of his conception to the time of the "puling infant," and from that time through all the stages of his existence till, in old age, he returns to his second childhood, and passes out of this world as unconsciously as he entered into it; or, if conscious, looking back on his life as a dream, and looking forward to another life where he shall attain to the

happiness he has so long dreamt of. Who can take so high and so exalted a view of the Creator as he who daily studies the works of His hands in the anatomy and physiology of man? Physically and mentally, surely to us of all others, come home the words of the Psalmist: "We are fearfully and wonderfully made." And as we study the anatomy and physiology of the lower animals, comparing each with its kind, and comparing all with man, our wonder is the more in creased at the grand perfection and design of creative power. And it belongs to the medical man, gentlemen, to go still further—to examine the flowers of the field and all the fruits of the earth, and all the minerals contained within the bowels of the earth, and by his knowledge to adapt them for the use of man. In fact the medical man is the student of nature, and of all natural laws. How then can he be other than liberal in all his views? How can he help taking the widest and most exalted view of the great Creator and the widest and most charitable view of the creature? When the medical scientist has heard that a man has raised his hand to take away the life of his brother, his first feeling is regret for the murdered man, his second thought is as to what there is peculiar in the mental organization of the murderer, that he should commit this crime against God and society. He, the mental physiologist, knows that there *is* something wrong in the mental organization of the murderer, whether he be the victim of hereditary taint, or of evil associations. And, although he does not deny the right of society to take means to protect itself, yet, with the knowledge he possesses, he is compelled to make all the allowance he possibly can for the unfortunate criminal. And if it be possible to show that he acted under an *impulse*, which his *will* could not control, whether that impulse be an insane or criminal one, and when he hears men in their just and righteous indignation, cry out for the life of the criminal, and quote the law of Moses: "Whoso shedeth man's blood, by man shall his blood be shed," he answers, ONE greater than Moses, when He held the first inquest upon the murdered ABEL, did not take away the life of the fratricide Cain. Nay, not only so, but He set his mark upon him, that no man should dare to take

away his life. And again, he can quote another greater than Moses, who came after him, the Man-God. His words were: "I say unto you, not an eye for an eye, and a tooth for a tooth; but whosoever shall strike you upon the right cheek, turn to him the other also." And again when raised upon the CROSS, His last appeal to His Father was: "Forgive them, for they *know not what they do*." Surely, gentlemen, God knew what man was. He knew his mental organization. He knew that CAIN inherited his mental organization from his parents, who showed they had in them the criminal neurosis by breaking God's commandment. Knowing these scientific truths, gentlemen, we medical scientists need not fear to step forward boldly before the world and state that man is governed hy his mental organization.

Gentlemen, there is a certain subject to which I wish to take this opportunity of drawing your attention as medical scientists, in the hope that, for the sake of morality, you may set your faces against it. I allude to the public exposure in the Press of those guilty of breaches of the moral law; breaches disgusting to every man, with even an ordinary mental organization—yet, gentlemen, breaches, if we believe history, that have been committed since the earliest ages of man. Their exposure always tends to evil and not to good. Society derives no benefit for having these crimes exposed, and besides the exposure of them is a great breach of charity. If, gentlemen, every man's crimes were written upon his forehead, I fear there are but few of us that would not "wear our hats over our eyes." Every man knows his own weak point morally as well as physically; and we should not expose it to the gaze of the world. It is not an object to strengthen the mental organization of the observer, besides we know enough of evil without telling us more. But as Pope said there are men, who—

> "Compound for sins they are inclined to,
> By damning those they have no mind to."

Gentlemen, I look upon the Press as the great power of the age, for good or evil. I love liberty too much myself to ever

even appear to sanction any attempt to gag the press. But I think, as scientists, we have the right to respectfully point out to the writers on the press, as we do to the teachers of religion, that for the sake of morality there are some things better not made public. Better to take the advice of "UNCLE TOBY," so gravely given to the fastidious lady, when she spoke of her child's possible action if allowed into the parlour: "I would cover it up, Ma'am, and say nothing about it."

Gentlemen, I owe you an apology. I said I would not speak on science. Well, gentlemen, my intention was good, but you know the force of habit. What I have said I maintain, that there is no calling in life, no profession more high or more honourable than is that of the Medical profession. And as your chosen President and for the honour of that profession, I call upon each and all of you, to so work this year that we have entered upon, that at the close of it when I come to give a resume of the work that has been done, I can congratulate you and myself on the result; and that we will all know that we are wiser and better men.

Before concluding, I beg to inform you that, when an opportunity offered, I did not forget to point out to those in authority the necessity there was to have appointed in the city an Inspector of Anatomy, who would see that the Anatomy law was carried out in its integrity. I represented in the strongest terms the injustice from which the Medical schools were suffering; and I received the strongest assurance that care would be taken, in the future, that the medical schools should be justly dealt with. There is one difficulty, however, to overcome. The law, it appears, most absurdly provides that the Inspector of Anatomy shall be an employee of the city corporation. Knowing, however, that where there is a will there is, generally, a way, and that the will is not wanting in the present instance, I trust that the Provincial Government will get over this difficulty, and find the right man for the right place.

Gentlemen, I congratulate you on the success of our society up to the present. I congratulate you that in the past such able men have filled the Presidential chair; I congratulate the old

members that they have added to their number so many young and talented men, who have already shown that they, in their time, will do their parts manfully to maintain the high position that has been attained by the Montreal Medico-chirurgical Society. I congratulate you that you have so much power in your hands, and that you will always use it for good—good first for society at large, by advancing science and thereby civilization—good, secondly, by elevating the medical profession to the highest intellectual and moral standard. Good, lastly, to yourselves, by doing your duty fearlessly and faithfully through life, so that when you come to the close of your labour, and take off your armour, you may have that which no man can deprive you of, a peaceful conscience and self-respect.

Again, gentlemen, I thank you for the high honour you have conferred upon me, and, believe me I shall do my best, and no man can do more, to faithfully discharge the duties you have so kindly imposed upon me. I thank you for giving me such intelligent and energetic assistants, who, I feel sure, will take pleasure in aiding me, so that the society shall lose nothing by the choice you have made.

Hospital Reports.

MEDICAL AND SURGICAL CASES OCCURRING IN THE PRACTICE OF THE MONTREAL GENERAL HOSPITAL.

Comminuted Fracture of the Fifth Cervical Vertebra. Under care of DR. RODDICK. Reported by JAMES BELL, M.D., Assistant House Surgeon, Montreal General Hospital.

J. S., was brought to the Hospital on the 27th of August, 1878, by the police, having been picked up by them in a powerless condition, after falling from the revetment wall to the ground below—a distance of fifteen feet. He was quite conscious on admission, and could speak well, but could not move hand or foot. He admitted being drunk, and stated that he was sitting on a plank propped up on a couple of stones on the edge of the wall, and thinks he must have been dozing when he fell backwards to the road below, striking his head and inflicting a severe

scalp wound just in front of the junction of the coronal and sagittal sutures. He was stunned for a moment, but recovered consciousness almost immediately, and was then conveyed to the Hospital. He was a large, finely-proportioned man, aged 40. He was a laborer of Irish descent, over six feet high, and weighing 200 lbs. When undressed and examined there was found to be complete paralysis of motion from the neck down. The intercostal muscles were paralyzed, and the breathing purely abdominal. There was also paralysis of the bladder and sphincter ani. He could feel the prick of a pin over the shoulders and on the front of the chest as low as the third rib. Below this there was complete loss of sensation. He could move his hands backwards or forwards, and from side to side, (on the axis), and did not complain much of pain. He could swallow well, but could not cough. As there was paralysis of all the nerves arising in the brochocial plexus, and yet good diaphlegmatic breathing, the lesion of the cord was thought to be situated in the region of the fifth cervical vertebra. Dr. Roddick endeavoured to relieve the symtoms by stretching the neck by means of Sayre's suspensory apparatus and manipulation, but without success. The neck was pretty movable, but the crepitus was discovered. He was ordered an ice-bag to the back of the neck, and the bladder and bowels attended to.

Next morning the temperature was 100° F. Pulse 100. He complained of some pain about the middle of the sternum and in the back of the neck. The abdomen became distended with gas, he could not cough nor expectorate, and he gradually sank and died on the morning of the first of September, having lived about four days and a half after the accident.

He had always been very healthy, but a notorious drunkard. Family history good.

Post mortem 32 *hours after death.*—Body that of a large and powerfully built man. A scalp wound is seen just behind the margin of the hair over the centre of the forehead. The wound is three or four inches long and encloses a large triangular portion of the scalp. No emaciation. On raising the

sternum a transverse fracture is seen separating the first and second portions of the bone.

Thorax and Abdomen.—Position and appearance of organs normal. Lungs sodden and filled with bloody serum. Bronchial tubes filled with frothy mucus.

Throat, covered with a thick layer of fat. The arch of the aorta is dilated into a large pouch. The cavities of the heart all contain dark blood. The orifices are all very large, but the valves and heart substance are normal. On opening the aorta large patches of atheroma are seen. Some of these are becoming calcified, but most of them are quite soft. There is great dilatation of the arch, especially the ascending and transverse portions, at the junction of which smaller pouchings exist, where the coats of the artery are so thin as to be quite translucent. Liver somewhat enlarged and fatty. All the other organs normal. On removing the cervical portion of the spinal column the body of the fifth vertebra is found to be broken into five or six fragments, and to leave almost completely severed the cord at this point.

Case of Strangulated Oblique Inguinal Hernia.—Operation. Successful result.—Under the care of DR. FENWICK.—Reported by MR. THOMAS GRAY.

H. St. C., æt. 27 years, was admitted into the Montreal General Hospital on the 26th September, 1878, suffering from symptoms of strangulated oblique inguinal hernia of the right side. He is a strong, robust and muscular man. About six years ago he noticed that the right side of the scrotum was enlarged and hard, but he cannot assign any cause for this condition; he is a farm labourer, but is not sensible of ever having produced the hernial protrusion during any extra exertion. He has been accustomed to heavy work, and the swelling of the scrotum never gave him any uneasiness excepting during violent exertion, when it became enlarged and painful, he also suffered pain when exposed to cold. From the time he first noticed it to within a year ago, it gradually augmented in size, when it appeared to be stationary for a time, and would frequently go

away, more especially at night, and even in the daytime when he threw himself on his back, it would frequently go in with a gurgling noise. On the 22nd September, he rode on horseback and got cold and chilled through. On the evening of that day, the lump had increased in size and was painful; it was only partially reduced during the night, and as soon as he arose in the morning it came out again. He continued to work up to mid-day, and on taking a heavy lift, which occupied a few moments, he was seized with violent vomiting which has continued more or less severe up to the present time. A surgeon was called and the taxis applied, but it failed to reduce the hernial protrusion; other means were also resorted to but failed of success, and as the case appeared to be urgent, he was sent to Montreal for surgical treatment.

On admission he looked pale and distressed, vomiting was persistent. The vomited matter had the usual feculent odour, and was dark in colour, hiccough was almost constant, his pulse was full and bounding, and there was some mental disturbance, more of the character of low muttering than actual delirium. The eyes were suffused, and he complained of great tenderness in the region of the hernial protrusion near the neck of the sac. The bowels had not acted since the morning of the day in which these symptoms had been declared.

At the hour of visit on the day of his admission into hospital, the taxis was applied but failed, and the operation was at once determined on. He was removed to the operating theatre, placed under ether, and another unsuccessful attempt at reduction was made. A free incision was then made in the usual way, the operator cutting down carefully until the sac was reached. This was opened at its most dependent part, and a quantity of bloody serum evacuated. The sac was opened and a coil of small substance came into view. The coats were found much congested and œdamatous, the bowel feeling thick, hard, and brawny, and the surface was covered with a layer of lymph. The stricture was found to be at the internal abdominal ring. This was incised in the usual way, and the operator then proceeded to reduce the protruding bowel. Some difficulty

was experienced; in its reduction a portion of the healthy bowel was drawn down with the object of removing any recent bands which may have formed attaching the bowel to the mouth of the sac. After some manipulation and considerable difficulty the hernial protrusion was returned in whole, the wound closed by carbolized ligatures, a compress with spica-bandage applied, and he was removed to his bed. The hiccough continued for a short time after the operation. This, however, ceased after the administration of a hypodermic injection of morphia. In the evening his temperature was normal, he was a little restless, pulse full and soft, but there was some tenderness about the neck of the sac. There had been no vomiting since the operation, he had taken milk sparingly. Opium was ordered to be given in grain doses if necessary.

September 27th.—Patient feels comfortable. Had one grain of opium during the night and one this morning. Parts about the wound and the scrotum are swollen and tender. The bandage which had become loose was reapplied. Temperature 99°. No bad symptoms present.

28th.—Tenderness less marked to-day. Still a good deal of inflammatory effusion. One of the stitches having been removed the wound is open in part, the rest shows signs of uniting by first intention. Water dressing ordered. Bandage and compress removed. Temperature 99°. Pulse normal. Patient says he feels comfortable. Urine has been drawn off since the operation.

29th.—Is restless. Temperature (morning) 100½°. Tongue furred; tenderness in hypogastric region; bowels still constipated, and scrotum red, swollen and tender. Wound is healthy and is beginning to granulate. Pulse is bounding, and 100 in the minute.

30th.—Condition nearly the same as yesterday; pulse not so bounding; scrotum increased in size, and redness more diffused.

October 2nd.—Pulse and temperature normal to-day. Tenderness over abdomen less. Tongue cleaning, and scrotum less painful and red, but still containes effusion. Took opium gr. i. last

night and spent a good night. Ate an apple to-day and some custard.

3*rd*.—Temperature and pulse still normal. Bowels not acting. Effusion into scrotum going down, and tenderness less marked. Wound is covered by healthy pus, and is granulating freely.

6*th*.—Had a regular stool to-day; for the first time complained of a sense of desire tn go to stool, but an inability to evacuate the contents of the bowel. Dr. Fenwick ordered an injection which gave him great relief. General condition good. Wound looks well, œdema almost gone; no tenderness, but testicle is large and feels firm There is also a good deal of thickening along the site of the cord. A suspensory bandage was ordered.

14*th*.—Wound almost closed; œdema entirely gone; testicle large but less tender than a few days ago. Does not complain of any pain, &c. Bowels regular and health good in all respects. He walks freely about the ward, and sleeps well, and in every respect has properly recovered. The scrotum is still suspended, and he will return home in a day or two. The hernia so far has not descended, nor does there appear any tendency thereto.

Reviews and Notices of Books.

Transactions of the Pathological Society, Philadelphia— Vol. seventh, containing the report of the proceedings from September, 1876, to July, 1877. Edited by J. Henry C. Simes, M. D., &c. 8vo. pp. xxi. 175. Philadelphia: Printed for the Society by J. B. Lippincott & Co., 1878.

This is a very neatly got up book. The first part of the volume gives a list of former Presidents; of officers and committees at date of issue; of members; of specimens exhibited at the meetings of the Society; of specimens reported on by the special committee on morbid growths, and list of illustrations. The special work of the volume then begins.

The first paper is a report on the osseous system. Dr. John Ashhurst, jr., reports two cases of compound fracture of the

skull, occurring in children, with remarks. In the second case death ensued from abscess in the anterior lobe of the right cerebral hemisphere, which is attributed to injury to the brain substance from contre-coup. This, we think, admits of doubt; it appears to us to have been due to extension, as the veins of the diploe were most probably inflamed, pus had formed, and was evacuated at the time the trephine was applied in removing the depressed portion of the bone. Dr. William Pepper likewise reports an interesting case of abscess formed between the bone and meninges evidently from a former injury. Dr. Ashurst also reports a case of amputation at the hip-joint in a young man of 22 years, for osteo-sarcoma of the femur. At the time of the report on the 9th day after the operation, the patient was doing well. There are altogether nine articles in the report. The other writers being Dr. T. B. Reed, for Dr. Reynolds, in a case of amputation after compound fracture in which the injury was followed by necrosis of the tibia and fibula and disease of the ankle-joint. Dr. Lenox Hodge on ostitis of the tibia, two cases. Dr. J. C. Wilson, on intra-capsular fracture, and again, Dr. Hodge on caries of the sacrum and great trochanter, with diseases of the ankle-joint.

The second section is on diseases of the digestive apparatus. Dr. William Pepper reports a case of typhoid fever in which there was septic-poisoning and death from exhaustion. Other lesions were found on post-mortem examination affecting the spleen, intestinal glands, endocarditis, with ulceration, abscess of the femur and suppurative parotitis. Cancer of the stomach is next reported on by Dr. Louis Starr. There are other interesting and important cases reported in this section, altogether twelve in number.

A like number of cases are reported in the section on the Vascular System, the opening article being on "dissecting aneurism of the abdominal aorta," reported by Drs. Edwards and Stone, and again we notice an interesting case of aortic aneurism opening into the œsophagus, reported on by Drs. Starr nad Bodine. The other cases reported are all of interest.

The fourth section, on the organs of respiration, opens with the report of a case by Dr. Pepper, in which there existed

extreme diseases of the pericardium, pleura and peritoneum, and in which tapping of chest and abdomen had to be practiced to relieve the patient's distress. There is also a paper on embolic pneumonia by Dr. John Guiteras. This gave rise to a discussion, animated in character, which is reported, and adds interest to the case. There are several other interesting papers in this section.

In section five, the genito-urinary apparatus is considered. In division *a* we have cases of contracted kidney, interstitial nephritis, large white kidney, cystic disease of the kidney, and tubercular degeneration of the kidney. This forms the first division. The second division *b*, includes diseases of the female generative organs, and in *c*, the third division, will be found cases having reference to the male organs of generation.

In the sixth section, affections of the nervous system are reported on. Under section VII, will be found a report on affections of special sense, and at VIII, tumours not otherwise classifiable are given. This is followed by a miscellaneous collection of good things thrown in at the end, some of much interest. We must commend the careful manner in which this work has been edited. The collection is highly interesting and instructive.

A Treatise on the Science and Practice of Midwifery.—By W. S. PLAYFAIR, M.D., F.R.C.P., &c., &c., with notes and additions by ROBERT P. HARRIS, M.D. Second American from the second and revised London edition, with two plates and one hundred and eighty-two illustrations. 8vo. pp. 639. Philadelphia: HENRY C. LEA, 1878.

Nothing can be more gratifying to an author than a full appreciation of the value of his work. That Playfair's system of Midwifery was fully appreciated by the profession is attested "by the rapid exhaustion of an unusually large impression." This led to the issue of a second edition before the expiration of two years, and in this edition the author undertakes a careful revision, so that we have here a useful and valuable textbook, and one which is freely recommended to the student and

practitioner of medicine. No alteration in the arrangement of subjects has been made in this edition, and there does not appear to be any very material change in the views enunciated in the first edition. Additional illustrations are given. The American editor has found that very little was demanded from him to render the work complete and accurate. The additions made by him are confined to points in which the experience and practice of American obstetricians differs from that of their English brethren. These are chiefly on the subject of the Cæsarian section. The variety of forceps and the method of application, dystochia from tetanoid uterine constriction, and the intravenous injection of milk as a substitute for transfusion of blood. We commend this work to our readers, it is a text-book containing the authoritative utterances of a practical man of large experience. It is to be had of Dawson Brothers, St. James Street.

Elementary Quantitative Analysis.—By ALEXANDER CLASSEN, Professor in the Royal Polytechnic School, Aix Le Chapelle, translated with additions by EDGAR T. SMITH, A.M., M.D. Philadelphia: HENRY C. LEA, 1878.

This is a particularly useful work on quantitative analysis, specially adapted to the beginner, by following out the scheme adopted in this book the student is led from simple quantitative determinations to more complex forms of analysis by degrees, and is, in fact, educated from the stepping stone to the complete quantitative analysis of inorganic structures, to which is added analysis of mineral waters. These are familiar to the different substances mentioned, and the composition of many of the minerals is given.

It is well illustrated with good practical illustrations, well drawn, and free from the mistakes so common in such works of putting glass flasks on a naked metal retort-stand. In the illustrations in this book the metals or flasks are represented properly protected.

There is at the beginning of the work a good table of contents, and at the end an excellent table for calculatiug analyses, giving

the atomic and muscular weights of elements and their compounds, aud the quantities percentically stated.

This is succeeded by a table of tension of aqueous vapour—and for the calculation of the hardness of water by soap test, and lastly by a copious index. The descriptions are clear, and concise, without sacrificing efficiency. The print is clear and easily read, the paper is good and strong; altogether, we can highly recommend this work to any one who is studying chemistry practically, especially those whose occupation will require a knowledge of quantitative analysis.

Extracts from British and Foreign Journals.

Unless otherwise stated the translations are made specially for this Journal.

Treatment of Ulcers & Varicose Veins.—In the *Lancet* for October 12th, a note on the treatment of ulcers and varicose veins by Martin's strong elastic bandage, appears from the pen of George W. Callender, F.R.S., Surgeon to St. Bartholomew's Hospital.—Having for some time used the elastic bandage as recommended by Dr. Martin, of Boston, U. S., for the treatment of varieose veins and ulcers, it is right to express my opinion that his treatment is practically good. Under its influence, ulcers not of a specific character do certainly heal, and quickly; and as thus effected whilst the patient follows his usual occupation, the merit of the treatment is evident. Although there has been scarcely time since I received the bandages from America for use in St. Bartholomew's Hospital, to test their efficacy in the continued treatment of varicose veins, yet I have found that the application of the bandage is at once followed by a sense of great relief. A man of thirty-six years of age, who had suffered for eleven years from varix of either internal saphenous vein, extending as high as the groin, experienced at once and since greater relief from the use of the bandage than he had ever had from silk elastic stockings, although his position was such as to allow his wearing the best which could be made for him. I have used the bandages for many cases of ulcer of the leg, chiefly due to varicose veins, and always with the good

result stated by Dr. Martin, with whose practical statement respecting the treatment of these ulcers I agree.

There are some points named by Dr. Martin which are essential if good results are to be had. The first of these is as to the quality of the bandage itself. It should be just as the author describes, and is supplied from America. If thicker, it should be clumsy; and if thinner, it needs to be more tightly drawn to offer the due resistence, and the edges are more apt to indent or cut into the flesh. If Dr. Martin's treatmeat is to be tried, the bandage is such as his experience has led him to prefer.

The bandage should be applied before the patient rises from his bed in the morning—before, that is, the veins of the leg become distended by the impeded column of blood within them. It should be applied with just snugness enough not to slip down. The moment the foot is put to the ground the limb is so increased in bulk by the increase of blood in the veins that the bandage becomes of precisely the proper degree of tightness, and no matter how active the exercise or labour of the patient, it will remain in position all day. When the patient undresses at night the bandage is to be removed, and the limb wiped dry, a piece of soft old linen moistened with oil, or some equally simple dressing, laid on the ulcer and retained in place by a few turns of an ordinary roller. The bandage should be sponged with water (cold will do, but warm is better), and hung over a line to dry in readiness for the morning, or it can be wiped dry at once, or rolled up with the tapes in the centre. Such is the dressing for the night; in the morning the leg can be washed, but, whether it is or not, all traces of oil or cerate should be carefully wiped away, as contact with the bandage of any fatty matter would tend gradually to injure the rubber. This is the whole treatment. Rubber bandage all day, with erect position and exercise. The simplest possible dressing (merely to protect the ulcer from injury), with the horizontal position and rest, all night. Any pimples which may form are left to be treated by the rubber, and if the skin becomes chafed, a light covering of bunting, is applied as a bandage under the rubber, and the same is recommended to absorb excessive moisture.

No more distressing cases than of patients suffering from chronic ulcers crowd our hospitals, and I must say that I feel much indebted to Dr. Martin for the suggestions he has published, and which he has made practical application of for many years with, as he says, great success. My present but recent experience, leads me to believe that he is to be confirmed in the statement he makes, which any who like can read, as it is very clearly and ably put in the Transactions of the American Medical Association for 1877.

Extrophy of the Heart.—(By JOHN T. HODGEN, M.D.) —Mrs.——, a German, at term, attended by Dr. BERNAYS, in February, 1864, gave birth to a healthy living child. The heart was found entirely outside of the chest, the vessels passing from the chest through an opening in the median line. The heart was not covered by pericardium, and stood with its apex pointing forward, downward and to the left. The organ pulsated rapidly but regularly: with each elongation of the organ, the apex was pushed forward and swept to the left. The contractile wave, beginning at the auricles, swept over the ventricles.

On the third day after birth, the heart had lost its red color, being covered by a thick layer of fibrinous matter. This assumed a yellowish tinge, becoming softened, and was detatched, leaving the muscular tissue of the heart exposed and dry, or less moist than it had been.

On the fourth day, the auriculo-ventricular fissure became deeper, and presented a ragged-looking groove, which was deepened by the thickening of the borders.

On the fifth day the child died, and twelve hours after a post mortem examination was made in the presence of Drs. Hammer and Rogers.

The body was about the average size, and perfect except as noted. The distance between the inner ends of clavicles—*i. e.* the sterno-clavicular articulations—was $1\frac{3}{4}$ inches. The first and second pieces of the sternum were divided, leaving a space like the letter U; this cleft extended to a point opposite the

articulation of the fourth rib with the sternum, the opening being one inch in diameter.

As it approached the opening, the skin was continuous with a dense fibrous structure which was found attached to the great vessels—(*i. e.*, the pulmonary artery, the aorta, and the vena cava)—at a point corresponding to that at which the pericardium is attached. This connection served to hold the vessels in position as they escaped through the opening in the more dense structures. The heart was of normal size, but more elongated the apex being formed by the *right* ventricle.

On opening the chest no space was found for the heart, the mediastinum being central, with the phrenic nerves passing down in it near each other; the lungs filled the entire cavity, and each lung had three lobes. The hepatic veins ascended as a long single vessel to the right of the median line, in the mediastinum, to the opening in the sternum, and entered the right auricle of the heart on its right side and behind the opening for the ascending cava.

The ascending cava passed up the *left* side of the median line in the mediastinum, received the descending cava, and entered the right auricle by a sinuous passage, at the first passing downwards, then turning at a right angle to the right entered the auricle. The descending cava, half an inch long, situated to *left* of median line, received the innominate of right side, which was long and crossed the median line toward the left. The left innominate vein passed directly downward, and joined the right, on the left of the median line, formed the descending cava. A single pulmonary vein, formed by the union of a vein from each side, entered the *left* auricle. The pulmonary artery, having but two semilunar valves at its beginning, took its origin from the right ventricle; while immediately to its right, and from the right ventricle also, came the aorta. A free opening existed between the right and left ventricles. No foramen ovale existed between the right and left auricles, the septum being perfect; no dustus arteriosus.

Extensive and recent adhesions, formed by recently deposited lymph, showed the existence of peritonitis.—*The American Practitioner.*

Maltine.—*The British Med. Journal* remarks :—At the meeting of the British Medical Association at Bath in August last, among the exhibits of pharmaceutical and medical preparations, much interest was shown in one called *maltine*, which may be described as a highly concentrated extract of *malted barley, wheat and oats.*

Extracts of malt (*i. e.*, malted barley) are pretty widely known, but this is the first example of a combination of the nutritious principles of these three cereals that we have seen; and the greater value of this combination is apparent, as wheat and oats are especially rich in muscular and fat-producing elements. This preparation is entirely free from the products of fermentation, such as alcohol and carbonic acid, and is very agreeable to the taste. Clinical experience enables us to recommend it as a nutritive and digestive agent, in virtue of its albuminoid contents, and its richness in phosphates and in diastase, likely to prove an important remedy in pulmonary affections, debility, many forms of indigestion, imperfect nutrition, and deficient lactation. It will in many cases take the place of cod-liver oil and pancreatic emulsions, where these are not readily accepted by the stomach.

The agents of the manufacturers, Messrs. J. M. Richards & Co., London, issue a pamphlet describing fully the process of manufacture, which no doubt they will supply to any medical man; and we are disposed to believe that maltine, which is less known here than abroad, is well worthy of practical attention.

Formulary. — (LALEMAND'S GOUT SPECIFIC). — A Western correspondent sends us the following formula for this preparation, which is said to be made in St. Louis, Mo. :

R.	Ext. Colchici acet.	
	" opii aquos. aa	grs. xv.
	Potass. iodidi.	ʒ jv.
	" acetatis	ʒ ii.
	Aq. destill	℥ iiss.
	Vini albi	℥ jv.

Twenty drops three times a day.—(*New Remedies.*)

The Use of Ergot in Typhoid Fever.—M. Duboué of Pau recommends ergot in typhoid fever for reasons deduced from its physical action, and in one of his works cites seven cases in which it was employed. Two were in the early stages and presented all the characteristic symptoms of the malady, but they got well so soon that it was thought that an error in diagnosis was possible. In three others ergot was not used until all other medicinal resources had been exhausted, and the patients had reached an almost hopeless state. But they all recovered after taking from a gramme and a half to three grammes of ergot daily for about two weeks. Another, who presented grave ataxis symptoms from the outset, with delirium, trismus, carphologia, and intermittent pulse, took ergot for twelve days, the disease assuming a milder form and recovery following. Finally, a patient with typhoid fever, who was three and a half months pregnant, was treated with ergot for fifteen days, and got well without miscarriage, although she took a daily dose of a gramme and a half or two grammes of the drug.—(*Boston Medical and Surgical Journal*, March 28, 1878.)—*The Practitioner.*

The Physiological and Therapeutic Action of Jaborandi.—O. Kahler gives as the result of his observations in jaborandi that, in moderate doses, it produces approximation of the far point, diminished blood-pressure, as shown by Marey's sphygmograph, with secondary increase in the rapidity of the pulse; when given in large doses it causes retardation of the pulse, with at first lowering, but subsequently increase, of the blood-pressure. The slowing of the pulse depends on an exciting action, opposed to that of atropine, exerted upon the inhibitory ganglia in the heart. (Leyden came to the same conclusion in regard to pilocarpin.) He established is antidotal action to atropine, but found that it is much feebler, than this poison. As a general rule he prefers the subcutaneous injection of pilocarpin in maximum doses of 0.024 of a gramme, when jaborandi has to be used internally. In diabetus mellitus he observed no action exerted by jaborandi on the quantity of

sugar excreted, providing the digestion was not interfered with. In a case of diabetes insipidus, on the other hand, the administration of the drug reduced the quantity of urine in three days from 6-000 grammes to 2-300; the body weight of the patient did not undergo any increase, but the general health and strength improved materially. In bronchitis acuta and in chronic dry catarrhs Kayler recommends this remedy strongly, and especially, also, in parotitis occurring in the course of severe infectious diseases; and suggests that it should be tried in mumps. He considers that the affections in which it is likely to prove useful are rheumatic diseases, recent neuralgia, dropsy without cardiac debility, the existence of such debility being a contra-indication; hyperæmia and nephritis, uræmia, and, lastly, chronic metallic poisoning.—(*Prayer med. Wochenschrift*, No. 33 and 34, 1877; and *Centralblatt f. d. med. Wiss.*, April 27, 1878.)—*The Practitioner.*

Stenosis of Pulmonary Artery. — Dr. Peacock exhibited a specimen of Stenosis of the Pulmonary Artery from disease of the valves, probably congenital. The patient was a boy thirteen years of age who was said to have never been strong, and to have always been livid, but who was in fair health up to four months before his admission into hospital, when he began to suffer from dyspnœa and increased lividity. There was a loud double murmur over the pulmonary cartilage, and a distinct thrill. The patient dying, after suffering from dropsy, &c., the heart was found to weigh 9 oz., the right ventricle to be dilated and hypertrophied, and the orifice of the pulmonary artery narrowed and funnel-shaped, as from adhesion of the valves, the circumference of the orifice being about four-fifths of an inch. Dr. Peacock thought the disease to be congenital. At the time of birth it must have been slight, or else one or both of the fœtal passages would have remained pervious.—Dr. D. Powell asked whether the analogous condition of the mitral valve was also congenital. Many cases of pure mitral stenosis are met with in which no previous history of rheumatism is present, and where the only explanation is that

they are congenital in origin. Such patients live long, there being often no regurgitation.—Dr. Peacock had long regarded a number of these cases as congenital. Burns, of Glasgow, had pointed this out, and so had Farre, and Dr. Peacock himself had frequently seen cases of children who had been ailing all their lives, and who had evidence of mitral constriction. He agreed with Dr. Powell that very often cases of presystolic murmur is met without any previous rheumatic history. The President said that a year ago he saw a patient, twenty-five years of age, with presystolic murmur, and who was known to have had it when two years old, and yet during the whole time he had shown no symptoms of heart disease.—*Lancet.*

Chlorhydrate of Polycarpine in Ophthalmic Practice.—Dr. Alexandroff states (*Pamphlet*, Marseilles, 1877) that Jaborandi for various reasons is not well adapted for administration; it has a disagreeable taste, it sits uneasily on the stomach, causing nausea, vomiting, and sometimes colic, it produces vertigo and fainting, and lastly it has the disadvantage of being inconstant in its action. Pilocarpine, the active principle of jaborandi —discovered by Hardy in 1875—is free from some of these inconveniences, and its action has been studied on patients affected with rheumatism, albuminous nephritis, and pleurisy, but until his own observations, no attempts had been made, M. Alexandroff states, to ascertain its physiological value in diseases of the eye, except those of M. Wecker, who treated a few cases by hypodermic injection of the chlorhydrate. M. Alexandroff determined to investigate its action, and tried it first in a case of rheumatismal irido-choroiditis. The case was sufficiently severe to induce M. Metaxas to recommend iridectomy, to which the patient refused to submit. About 2 centigrammes of the chlorhydrate of pilocarpine in solution in water was, with M. Melaxa's permission, injected by M. Alexandroff into the arm of the patient, atropine being at the same time instilled into the eye. The patient passed a better night and was free from pain; on the following day the injection was repeated, and again at

intervals on five occasions. Under this treatment the media became clear, the ulcer which had been present healed, and vision was completely restored. M. Melaxas tried the chlorhydrate again in a second case of double rheumatic iritis with equal success, and it was afterwards tried not only in many cases of rheumatic iritis, but in retinal hæmorrhage, and in exudative choroiditis. In all instances salivation and sweating appear to have been produced, diarrhœa was occasionally observed. Epiphora was constant. The pulse and temperature rose immediately after the injection. He thinks it has an indisputable action on the iris, and finds that it acts more rapidly than eserine. It is at once the antagonist and antidote to atropine. It occasionally produces præcordial pain and feeling of anxiety. He thinks it will prove valuable, not only in cases of rheumatic iritis, but in all cases when the area of the pupil, the choroid and the retina are the seats of serous or plastic exudation either from local or general disease.—*Practitioner*, September, 1878.

Iodoform in Glandular Swellings.—Dr. MOLESCHOTT, of Turin, writes (*Giornale Internazionale delle Scienze Mediche*, Nov. 5 and 6, 1878,) that he has used iodoform with success in cases which have been usually treated by iodine ointment, such as glandular swellings and cold abscesses. He mentions a case of enlarged spleen, with great prostration, pallor, obstinate diarrhœa, swelling of the lymphatic glands, and increase of the white blood-corpuscles (1 to 50 red), in which very favourable results followed the painting of iodoformed collodion over the spleen and lymphatic glands. Not less successful was its application in orchitis, and epidydimitis, and also in exudations into serous cavities, even including hydropericardium. He advises that iodoform collodion should be tried before paracentesis whenever removal of watery effusion is necessary. He has cured five cases of acute hydrocephalus by the application of this remedy several times daily; calomel and purgative being, however, given at the same time. In cases of swelling of the knee-joint, where surgical interference appeared

unavoidable, perfect recovery followed the prolonged application of the iodoform. Apart from its action as a resolvent, iodoform has the property of relieving pain: Dr. Moleschott hence recommends its use in painful attacks of gout and also in various forms of neuralgia. In a case of intercostal neuralgia, he gave it internally in the form of pills (three-fourths of a grain daily) as well as externally. In severe neuritis, he has used iodoformed collodion successfully after other treatment had been tried in vain. Administered internally, it will probably be useful in the palpitations of nervous and hysterical patients, and will restore the regularity of the heart's impulse. Its offensive smell is obviated by mixture with tannin.—*British Med. Journal*, Sept. 28, 1878.

Nitrite of Amyl in Ague.—Dr. W. E. SAUNDERS, of Indore, calls attention (*Indian Med. Gazette*, No. 39.) to the value of nitrite of amyl in ague, and records a number of cases in which advantage has been derived from its use. The drug itself, he remarks, is inexpensive and goes a long way. He now uses nitrite of amyl mixed with an equal part of oil of coriander, to render it less volatile, and at the same time to cover its odour. He regards it as the most powerful diaphoretic he has seen, and he uses it in all cases of fever to produce diaphoresia. The following is one of his cases: Mr. C. came for treatment about 7 P. M. in the cold stage of ague. Two minims of nitrite of amyl were administered; sweating came on in seven minutes. He lay down for half an hour to get cool, and then walked home well. He next morning took a dose of quinine, and has had but one attack of fever without the cold stage since. Previous to this he had fever every day for one month, during which he took large doses of quinine. Dr. Saunders observes that he does not mean to say that quinine should not be used in these cases, for there is ample proof that it tends to check the return of the attacks, and removes to some extent the septic condition of the blood induced by the malarial poison, and this more especially if small doses of opium be combined with it. In no case did the amyl fail to remove the attack in about one-

third the usual time, and in most cases the fever did not return. The method of administration he adopts is this: Four drops of the mixture, or two drops of amyl are poured on a small piece of lint, which is given into the hands of the patient, and he is told to inhale it freely. He soon becomes flushed, and both his pulse and respiration are much accelerated, and when he feels warm all over the inhalation is discontinued, as the symptoms continue to increase for some time afterwards. A profuse respiration now sets in, which rapidly ends the attack; in some cases, however, the cold stage merely passed of without any hot or sweating stage—*Practitioner.*

Harmlessness of Urea in the Blood,—The London *Medical Record* mentions experiments by MM Feltz and Ritter, to show that pure urea never brought on convulsive symptoms. Urea injected into the blood was eliminated very rapidly by the urine, and when it existed in considerable quantities in the organism it did not, as generally supposed, undergo a rapid transformation into carbonate of ammonia. Dogs into which urea was injected, after the renal vessels were tied, to prevent the rapid elimination of the poison, showed no more marked convulsive symptoms than others in which the same ligature was made without the injection. The convulsive symptoms observed with urea were produced by an impure substance containing ammoniacal salts. The authors summed up in the following conclusions:—1. Pure urea, whether natural or artificial injected iuto the venous system in large quantities, never brings on convulsive symptoms; it is rapidly eliminated by the secretions. 2. There are no ferments in the normal blood which convert the urea into ammoniacal salts. The rapidity of elimination cannot be regarded as the cause of the non-conversion, for, by the suppression of the renal secretion the elimination of the urea may be retarded without accelerating the supervention of the eclampsia. The urea which in large doses brings on convulsions is always impure urea which contains ammoniacal salts, which are easily shown to be present by Nessler's reagent.—*Medical and Surg. Reporter.*

Ligature of the Femoral Artery,—(Two cases of ligature of the femoral artery with carbolized catgut, by D. WALSHE, L.R.C.P., Edin., &c.)—Now, when the merits of catgut as a ligature are being discussed, it would be well if every practitioner who has ligatured an artery in its continuity would publish the case. Should arteries have been ligatured by men, who like myself, cannot boast much skill or experience, the cases would still be very important as proof of the success of any particular plan of treatment, or of the efficiency and safety of and particular kind of ligature. Of course they would not be so valuable if advanced as proofs of the failure of a plan of treatment, or of the inefficiency or danger of a ligature. The hope that the two following cases will be of some slight use is the only excuse I can make for reporting them.

CASE I.—James R——, thirty-two, soldier, was admitted into the Chorlton Hospital, Withington, Manchester, on October 15th, 1873. He was suffering from an aneurism of the left popliteal artery, about the size of a hen's egg. He had served in India, and had contracted syphilis whilst in the army. He had no history of rheumatic fever, and had no disease of the heart. He was kept in bed, and had large doses of iodide of potassium. After a week of this treatment no beneficial change was observed in the aneurism. I then applied a pair of Skey's tourniquets over the artery in Scarpa's triangle. He was left to manage these himself, and instructed to screw them up alternately. The aneurism, however, continued to enlarge, and the pressure of the tourniquet being removed, the pulsation returned as strongly as when he was admitted. It was then decided to ligature the femoral artery. I placed a ligature on the artery in Scarpa's triangle on November 11th, 1873. The material used was catgut, obtained from Messrs. Wood, of Manchester, who guaranteed it to be the same as that used by Professor Lister. It was not applied under the spray. The wound was closed with iron-wire sutures, and dressed with carbolic lotion. Complete union by the first intention followed, and the patient was perfectly cured on the tenth day after operation. Two hours after the operation there was no perceptible difference in the temperature

of the sound and diseased limbs. He left the hospital in January, 1874; but returned the following August with a rupture of the *right* femoral artery. A large quantity of blood had been effused, and he was in a very feeble condition. So weak was he that Dr. Law (my colleague), Dr. Mallet, and Mr. Jones, of the Children's Hospital, Manchester, who saw the case with me, advised that no operation should be undertaken. The patient, however, insisted that something should be done for him, and, finally, it was decided that amputation offered the best chance of success. I amputated in the middle of the upper third of the thigh; but he survived the operation only a few hours. After his death I had an opportunity of examining the left femoral, which had been tied. It was perfectly continuous, and slightly thickened at the seat of the ligature, where it adhered for about a quarter of an inch to the sheath on the outside. The vein did not appear to have been at all disturbed. The artery was completely occluded both above and below the ligature.

CASE 2nd.—Edwin H——, sixty-one, joiner, was admitted into the same hospital on August 28th, 1872. This patient had an eneurism of the left popliteal, about the size of the closed fist. For three weeks he was treated by iodide of potassium and rest—that is, a fortnight longer than in Case I. In all other respects, however, the two cases were treated exactly alike, the pressure by the tourniquets being continued over the same space of time in each case. I mention this because it appears to be the opinion of some authors that unless a speedy cure is effected by compression, it should not be continued. The material used in this case was carbolized catgut, without any other antiseptic treatment. The wound healed by the first intention, except where the incision ran through a small slough, produced by the tourniquets.

Remarks. — The ligatures in these cases were tied tight enough to divide the inner and middle coats, and were secured by three knots. Mr. Holmes is, I believe, of opinion that the mortality from ligature after compression has failed is 10 per cent. greater than when the Hunterian operation is done at once. Does it make any difference where, and with what kind of

instrument the pressure is made? In these cases the pressure was made over that part of the artery which was afterwards ligatured, and was made with an instrument which scarcely a all interfered with the vessels which were to carry on the collateral circulation. I learn from Dr. Van Buren's address to the International Medical Congress at Philadelphia that Dr. Todd, of Dublin, was in the habit of preparing his cases for operation by employing compression, "in order that mortification of the limb might be prevented by allowing some progress to be made in establishing the collateral circulation." The difference in temperature between the sound and diseased limbs, immediately after the operation, in both cases was remarkably slight, and not the least symptom of gangrene made its appearance in either case, although E. H—— was over sixty years of age. This would lead one to suppose that the collateral circulation was to some extent established before the artery was tied.— *The Lancet*.

Removal of the Astragalus—for the relief of Congenital Talipes.) — In the *British Medical Journal* of Nov. 2nd, M. LUND of Manchester Royal Infirmary, reports a case of the removal of the astragalus in an adult for relief of congenital talipes. The patient, a factory operative. aged 29 years, was the subject of equino varus of the right foot. No attempt had been made in early life to remedy the deformity. Two years ago the outer side of the foot began to ulcerate at several points, and these had become so painful as to prevent him following his work. M. Lund decided to remove the astragalus, which operation he successfully carried out under the antiseptic method. The tibialis anticus and the planter fossia had to be divided subcutaneously, this being rendered necessary in consequence of the contraction and crumpling up of the foot. After the removal of the astragalus and the divisions of these contracted bands, the foot could be placed at right angles to the leg. The case progressed favourably. M. Lund exhibited a cast of the foot and leg; although not perfectly well, yet the patient has so far improved as to be capable of bringing the sole of the foot to the ground, which before the operation was an

impossibility. A well-made shoe upon Mr. Adam's principle was made, and the patient was going about. This exhibited some diffused inflammation about the torsal joints for which the patient was still under treatment. Mr. Lund drew attention to the peculiar form of the astragalus which had been removed as it illustrated the observations of Mr. William Adams, as to the change in shape of the astragalus in confirmed congenital talipes varus.

Tracheotomy. — After-Treatment of Tracheotomy Cases—Dr. Vogt quoted in the *Medical Press and Circular*, proceeding from the fact that with the present methods of treating tracheal croup most children perish, even after operation, from continued formation of the membrane, suggests glycerin as a means of hindering the formation. It is known that when this substance is applied to the mucous membrane a profuse watery serous secretion is excited ; and this is relied upon by Dr. Vogt to remove or prevent the adhesion of the false membrane. In the case of a little six years old girl treated in this way, a cure resulted. Glycerin mixed with an equal quantity of water was inhaled, by means of an inhaling apparatus connected with the tracheal tube, every half-hour. Dr. Vogt has also used this treatment in recent cases of croup, where tracheotomy has been thought unnecessary or unadvisable. Disinfection of the original patch in the pharynx by means of chlorine or bromine water preceded the use of inhalation.—*Med. and Surgical Reporter.*

Strychnia in Nocturnal Enuresis.—Dr. KELP, according to the *Medical Times and Gazette*, has obtained success in obstinate cases of this troublesome affection by the hypodermic injection of the nitrate of strychnia. He inserts in the vicinity of the rectum a single very small dose sufficing to arrest the malady for a time. When it returns the injection is to be repeated. His last case was a woman, aged eighteen, previously in excellent health, who had suffered from eneuresis during several months, consecutive to scarlatina. The first injection procured her a respite for several nights, after which the treatment was repeated, and the cure became complete.—*Medical and Surgical Reporter.*

Bullet wound of the Skull.—Mr. Clement Lucas related this case, which had come under his care at Guy's Hospital in February last. A solictor's clerk, aged twenty-one, after some misunderstanding with his *fiancée*, declared that he would shoot himself. Two days subsequently he was found drunk and disorderly, and was locked up by the police. Soon afterwards shots were heard, and he was found lying on the ground in his cell in a pool of blood, with a revolver by his side. The revolver was a small one, which carried pin-fire cartridges. Five chambers had been discharged, and one cartridge, carrying a small conical bullet, remained unfired. Two bullets, which had been fired at the iron door of the cell, were picked up on the floor; two were afterwards extracted from the skull; and one remained unaccounted for. He was brought to the hospital in a semi-conscious state. Almost in the centre of the forehead were two small circular holes, with slightly inverted edges. Except at the immediate edge of each aperture, there was no blackening of the skin, indicating that the muzzle of the pistol was applied directly to the forehead. The skin surrounding the bullet-holes was raised into a rounded eminence. When seen by Mr. Lucas, he had so far recovered consciousness as to be able to stand without assistance. Some bleeding occurred from the nose, and was taken as evidence that the frontal sinuses had been opened. Chloroform was administered, and a crucial incision made over the wounds. On the flaps being turned back, a blackened cavity was opened beneath the skin, formed by the expansion of the powder after it had penetrated the integument. At the bottom of this cavity a somewhat reniform aperture was seen in the bone, and lying upon the internal table were the two flattened bullets shown to the meeting. 'After removing numerous fragments belonging to the external table and diploe, the splintered internal table was also removed, in large, sharp-edged, angular fragments. The dura mater was then seen at the bottom of the wound, bulging on either side of the longitudinal sinus, and pulsating. At one spot there was, unfortunately, a small aperture. The wound was dressed antiseptically. On the following morning, February 3, he

was quite conscious; sensation and motion perfect; but he complained of great pain at the back of the neck. His temperature at 11 a.m. was 99°; but in the evening it rose to 99·8°, and his pulse to 96. He was confined to milk as diet, and ice was applied to his head. On February 4 there was some œdema of the eyelids. The wound was dressed. His temperature in the evening rose to 102·1°; his pulse was 100, full and regular. February 5: his eyelids were swollen so that he was unable to open his eyes. Towards evening he fell into a drowsy, semi-unconscious state, and his breathing became almost stertorous. In the evening his temperature was 102·2° and pulse 98; his respirations 25; and his general condition much worse. February 6: The patient was quite unconscious and very restless. He passed urine under him, and in the night had slight general convulsions. His right arm was rigid. The right leg was apparently paralysed; the left rather rigid. The wound was discharging grumous matter. In the morning his temperature was 104°; pulse 104; and respirations 34. In the evening the temperature rose to 104.8°; pulse 104; and respirations 34. February 7: He remained unconscious, and passed his motions and urine under him. The muscles of the right arm were very rigid, those of the left paralysed. During the day the temperature rose rapidly—at 1 p.m. it was 104°; at 5 p.m. 105·8°. At 7.40 p.m. he was placed in a bath, the water being 90°, and the patient's temperature 105·6° in the axilla, and 108·6° in the rectum. The bath was cooled by means of ice to 73°, when he was removed, after having been immersed twenty-seven minutes. The temperature was then found to be 103.4° in the axilla, and 107·2° in the rectum. After removal to bed, he was thought to be improved, his conjunctivæ being more sensitive and his pulse steadier; he was also able to swallow. The temperature continued to fall for about an hour after the bath; at 9.10 p.m. it was only 100·9°, but it soon after began to rise again. At 10.30 it was 104·1°, and at 12.15, 105°. He died about 3 a.m. on February 8. At the post-mortem examination, the aperture in the frontal bone was immediately above the frontal

sinuses, which were opened by its lower edge. The small aperture in the dura mater was covered with sloughy granulations. The frontal sinuses contained pus. The internal table of the skull was broken away some distance further than the external. There was general suppurative meningitis extending over the surface of the right hemisphere and the interior half of the left, and under the base of the brain into the right Sylvian fissure nearly to the quadrate space. The anterior part of each orbital lobe was bruised, ecchymosed, and softened; elsewhere, the brain was healthy. The other organs were all healthy, except the lungs, which were congested and œdematous, and the spleen, which was rather soft.

Mr. Hutchinson remarked on the existence of hemiplegia on one side and arachnitis on the other. He thought that in these cases there was usually some damage to the brain-substance itself—encephalitis as well as arachnitis.

Mr. Hulke recalled a case under the care of Mr. Lawson, where the bullet or leaden plug was found at the bottom of a large ragged hole in the forehead, in a mass of blood and brain. This man never had a bad symptom. He thought there was damage to the brain-tisssue in all cases of hemiplegia.

Mr. Heath mentioned a case where a man put a pistol close to his head. He was not killed, but was rendered completely blind. No bullet could be found, but there was a slight prominence on the opposite side of the head from the orifice of entrance. In this patient there were two kinds of squint. The man's health was still good.

Mr. Baker mentioned a case which he had seen, where a Chassepot bullet had struck the forehead and buried itself in the brain. After living for months the patient died convulsed and finally comatose.

Mr. Hulke said Larry had written of the case of a man who survived after a bullet passing clean through the brain, so that a probe could pass through.

Mr. Howse had had a case somewhat similar, only the result was fatal. Here the bullet passed right through. He cut down and found the bullet.

Mr. Hutchinson referred to an interesting specimen in the Leeds Museum, being the skull of a woman who was not known to have received any injury, but in whose sphenoidal fissure a bullet was found when she died of fever.

The President said much injury might be done to the brain and yet nothing particular happen. Injury to the convolutions did not seem greatly to matter if the *débris* was carefully removed. He referred to two cases, one of which he promised to bring before the Society.

Mr. Norton spoke of the case of a person, now alive, on whom craniotomy had been performed and who was put on one side for dead. He was not more stupid than the bulk of agricultural laborers.

Mr. Lucas said that in his case the paralysis was not complete, but there was rigidity. The anterior lobes of the brain might be injured without any marked result following.—*Medical Times & Gazette.*

On Ulceration of the Frænum Linguæ in Pertussis.—(In the *British Med. Journal* Dr. Robt. Cory remarks on this subject:—Dr. Elliott having lately added his experience to that of Dr. Maccall and of Dr. Morton with regard to the presence of ulceration on the frænum of the tongue in cases of whooping-cough, it may, perhaps, be of some service if I give my experience obtained from the children attending as out-patients at St. Thomas' Hospital.

The number of cases of whooping-cough during the last two years in which the frænum of the tongue was examined, amounted to 84. Of these 84 cases, 27 of them had ulceration of the frænum, giving a percentage of 32.14. This, it will be observed, is greater than that of Dr. Elliott (25 per cent.), but considerably less than that of Dr. Maccall (44 per sent.), and of Dr. Morton (41 per cent). I, however, agree with Dr. Morton in thinking that, if the cases could all have been followed up, the ulcer would have been found to exist even in a greater proportion than 41 per cent.; and I therefore look upon Dr. Maccall's experience as the one most nearly approaching the truth. Cases

which only come once to the hospital during the first week of the disease become classed with those which have no ulcer, although many of them no doubt have it developed later; indeed, as a matter of fact, the ulcer does not appear until the paroxysmal stage has existed for some days. The average length of attendance at the hospital of those having the ulcer was 6.5 weeks; but, among those not having it, it was 4.8 weeks.

The following table shows the ulcer at different ages:

	No. having Ulcers.		
During first year	0	out of	10
" second year	4	"	14
" third year	7	"	16
" fourth year	5	"	14
" fifth year	7	"	15
" sixth year	2	"	5
" seventh year	2	"	8
" eighth year	0	"	2

Among the 84 cases, 45 were females and 39 males. and the ulcer of the frænum was present in 16 out of the 45 females, and 11 out of the 39 males.

From the foregoing table it would appear, that the third, fourth, and fifth years are the ones during which the ulcer most frequently occurs.

That the cause of ulceration is due entirely to the friction of the soft parts against the teeth I have myself little doubt, and can entirely indorse what Dr. Maccall says on this point. I have never seen the ulcer in a child before the lower incisors were cut, and, in two cases, where the lower incisors had entirely disappeared in children of three or four years respectively, the ulcer never appeared, although repeatedly looked for.

The manner in which children cough is a very important point in the production of the ulcer. Some children instinctively protrude their tongues as far as possible—especially is this the case in those of three or four years old, in whom the pharynx is small; but with older children the necesssty for the protrusion of the tongue is not so urgent, and they have also, in one sense, a greater command over it; hence, in these latter, the ulcer is not so frequently formed. The time, also, at which the ulcer usually first appears, viz., during the second and third

weeks, and its coincident disappearance with the spasmodic stage, is exactly what the mechanical theory requires.

Perhaps the inflamed and swollen orifices of Wharton's ducts, opening as they do on each side of the frænum near the central line, have been mistaken for the commencement of follicular ulcer; but this condition, I take it, results also from mechanical irritation. That the symptom is an important diagnostic one I think all are agreed, and its simple explanation does not detract one whit from its value.

Transfusion.—At the meeting of the Société Biologie, Dr. Brown-Sèquard gave an interesting account of his experiments on transfusion. He had made use of different sorts of liquid for transfusion, such as normal blood, blood without its fibrine, and milk. In such case he found the results to be the same, but in the case of the milk the quantity that it was necessary to inject was more considerable than in the others. Ninety-five grammes of blood was drawn from a dog, and were replaced by the same amount of milk. Shortly after the operation (about forty-five minutes) there was no trace of milk globules to be found in the blood, and the dog has continned in excellent health ever since the operation, which took place more than five months ago. M. Malassez found, upon examining the blood after the transfusion, a greater number of white globules than normal. In concluding his remarks. Dr. Brown-Séquard expressed the opinion that the liquid injected should be at least of a temperature of 10° to 12° C. It was preferable, he thought, to chose the arteries rather than the veins, and recommended the operation to be done very slowly, in order to allow the liquid injection to acquire the temperature of the blood. Transfusion also succeeded in animals when the blood made use of comes from a species of animals different from that of the one under experiment. It appears that Dr. Thomas, of New York, has tried the transfusion of milk on the living subject, and is convinced that it acts as well as blood.—*The Lancet.*

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PHTHISIS AND ITS VARIETIES:

A LECTURE DELIVERED AT MONTREAL,

BY ANDREW CLARK, M.D., F.R.C.P., LOND.,

Physician to the London Hospital, &c., &c.

It was signified by circular, signed by Dr. Geo. W. Campbell, the Dean of the Medical Faculty of McGill University, and addressed to the profession at Montreal, that Dr. Andrew Clark, who had come to this country on the staff of H. R. H. the Princess Louise, would deliver a lecture on the subject of Phthisis. In response to the general invitation extended the Lecture Room of the Natural History Society was filled with medical practitioners of both nationalities, as well as with the students of the three medical schools in this city. A number of coloured drawings illustrative of cases that had come under Dr. Clark's observation, were placed on the table.

Dr. Campbell, in a few words, introduced the lecturer, who said:—

When I desired to have the privilege of laying these drawings of phthisical lungs before you, and of setting forth, in short and simple outline, the views which I have formed concerning the varieties of phthisis, I did not presume to think that in a place so distinguished for its additions to science as this is, and in the presence of persons, many of whom have contributed and are contributing to that distinction, I could say anything which would appear new, still, I desire to lay these drawings before you, and to set forth the views which I have formed, after long study of the subject in order that I might have the benefit of your friendly criticism, and learn how far your own experience corroborated or confirmed my own conclusions. It is not

my intention—indeed it would be out of place—to enter into any critical or historical sketch of the history of the various theories which have been promulgated respecting phthisis. I shall proceed without further preface, at once, to the heart of my subject, and endeavor in the fewest words and plainest manner to lay before you the conclusions at which I have arrived.

By phthisis I mean that assemblage and progression of symptoms, due to suppurative or ulcerative destruction, of more or less circumscribed non-malignant deposits in the lung. I shall not pretend that this definition is perfect, but I claim for it that it is a good working definition, and has this enormous advantage, that it involves no hypothesis, and whatever our views of phthisis may be, we may retain the name whilst the idea may change. You will observe in this definition that I have set entirely on one side the disease with which we are all familiar, under the name of Acute Tuberculosis.

The chief thing I have to say about that disease, before dismissing it, is this :—I think it has no special relations to phthisis at all. In its methods of approach, in the phenomena which attend its progress, and in the changes which we discover in them after death, in the state of the organs during life, it exhibits all the characteristics of what we call zymotic disease. I look upon acute tuberculosis as a sort of fever; which has for one of its anatomical expressions the little things called tubercles. If I appeal to the experience of any one present who has had the opportunity, not often acquired, of examining a number of cases of acute tuberculosis, I am sure he will agree with me that acute tubcrculosis rarely issues in what we call phthisis, or in any disease which would come within the terms of the definition I have made. Acute primitive tuberculosis, beginning often, either in children or adults, in apparently perfect health, producing fever, with a sort of capillary bronchitis, making rapid progress, marked by irregular fever, usually terminates in death in from three to six weeks.

Now, I might add, that having been occupied at the same time as Villemin in performing experiments upon inoculation, and having also tried other methods of producing tuberculosis

as well as by inoculation, I have come to the conclusion that the disease produced by inoculation is not a true tuberculosis. In all my experiments on animals, I found that with decent care, the so-called tuberculosis produced, invariably disappeared, that the progress of the malady, whatever it was, was unattended except at the beginning by any fever; that in animals inoculated, a disease is produced which does not appear to affect the general health, and which within five or six weeks disappears, leaving the animal as well as before. You will agree with me that this cannot be called acute tuberculosis in the same sense as that other malady, which is sudden in its commencement, rapid in its progress, profound in its constitutional effects and terminates almost invariably in death. When we examine the lungs of the bodies of patients who have died of phthisis, we may, without any undue refinement, classify these lungs under three groups. In the first group, we shall find that the dominant destructive element is tubercle, and its secondary consequences. In the second group we have pneumonia as the dominant anatomical element. In the third group the dominant anatomical element is fibroid tissue. I have purposely used the term "dominant element," to protect myself against any adverse criticism which has no just foundation.

The lung is a complete organ, and several anatomic elements enter into its constitution. When these are irritated by any foreign body, each comports itself after the manner of its kind; so that with one irritating agent, you may have different anatomical results. If tubercle is deposited in the lung and the patient is susceptible of being irritated by it, we know that two secondary consequences prevail,—one, a form of pneumonia,—the other, some form of fibroid change, and just as the one or other of these secondary results prevail in the future progress of the case, rapid and febrile if the pneumonic, slow and free from fever if the fibroid prevails. So true is this, it has almost given rise to an axiom with respect to the chronic phthisis, that in tubercles, *per se*, it never kills; it is the tubercle plus the secondary effects of the tubercle, which is fatal.

a. Now, as each of these three groups has a distinctive history;

as each differs from the others in the mode of origin, progression, consequences and issues, I think it ought to have a distinctive designation. Furthermore, that we may introduce no new names when old ones will suffice, and that we may avoid, in naming, any theory about the thing named, I shall call the first group, in which tubercle is the dominant anatomical element, *tubercular phthisis*, the second group in which some form of pneumonic exudation is the dominant element, *pneumonic phthisis*, and in the third group in which a fibroid element is dominant *fibroid phthisis*.

b. Now, by many observers in France and by some in England, it will be asserted that this classification is artifical and unreal; that the histological elements of tubercle are to be found in caseous pneumonia which is only a tubercular infiltration; that the fibroid changes are but transformed tubercles; that the whole three are structural homologues and but different expressions of one pathological state and nature.

Very well, although I regret these assertions as incorrect, and believe that I could demonstrate their inaccuracy; yet, for the sake of argument, I will admit their force, and will seek in another direction for such an argument as may be conclusive as to the existence of the varieties of phthisis which I have named I have not far to go in my search. I aver that the true criterion of difference between pathological products is to be found much more easily in the life-history which accompanies their evolution than in the anatomical elements which form their final expression; and when I pass from the dead-house to the wards, and inquire if there is anything in the clinical or life-history of phthisis which would justify its division into the varieties named, I discover, as I believe, a just answer in the affirmative. If this be so, can the grounds of those distinctions be so expressed as to be capable of recognition by ordinary clinical observers? Within certain limits yes!—In the very advanced stages of lung disease when the symptoms are more directly due to mere damage of function than to the nature of the damaging agent, recognition is sometimes difficult; but in the early stages with due care it is easy.

There is a second difficulty—partly one of terminology—in forming a clear conception of the varieties of phthisis.

When we speak of tubercular phthisis, there is no difficulty in understanding that we mean by it, the assemblage and progression of symptoms caused by the ulcerative obstruction of the lung by tubercle and its secondary effects. But when we come to pneumonic phthisis, we are at once met with a considerable degree of complexity, not only in the nature of the thing, of the pneumonia itself, but in the nature of the terminology which has been adopted. I will try to make it plain. There are three forms of pneumonia which we will all readily recognize. First, there is the common inflammation which attacks the base of the lung, which begins with a little pain, is followed by crepitation, tubular breathing, and, which terminates in six or seven days, and is generally removed. There is a second form of pneumonia, altogether different, which affects instead of the lower part of the lung, the upper part, which instead of beginning abruptly by fever, sometimes begins insidiously with a little fever and continues its march from the summit of the lung downwards. The characteristic of this pneumonia is a kind of cheesy stuff, exactly like that we find in the ripe scrofulous gland.

Between these two forms of pneumonia and connecting them, as it were, together, is a third form, what is called catarrhal pneumonia, which is common in children, and is often a result of capillary bronchitis. There are these three forms of pneumonia, and every one of them with different degrees of liability, is capable of developing phthisis. Every one of these forms is capable of giving rise to exudations which, when not absorbed, and undergoing suppurative destruction, come within the definition of phthisis. The common pneumonia may do this, although it does so very rarely, the cheesy pneumonia does it commonly, the catarrhal with an intermediate degree of frequency.

We have here a considerable complexity in enquiring into the definitions of these groups of phthisis. I will not go too closely into it at present, because it would occupy too much time, and blur the outlines of a picture I wish to keep clear, I will confine myself to illustrations of croupous and of cheesy pneumonic phthisis.

Are we justified clinically in distinguishing these three groups of phthisis? I think so. I will roughly sketch the distinguishing clinical characteristics of these groups.

First of all, there is the tubercular phthisis produced by the destructive agency and the consequences of tubercle in the lungs. In chronic phthisis, mere tubercles never kill, and if one could stop tubercles from producing secondary pneumonia, one could keep the patient alive, and if free from fever complications as well, I see no reason why the patient might not live as long as any one else. With regard to this first group, the main distinguishing point about it, clinically, is, as far as my experience goes, that whilst the local symptoms are, at the beginning, exceedingly few, the constitutional symptoms are many and profound. Here is a case—a girl about 18 years of age—with a history of phthisis in the family, has large eyes, is flushed easily, and for some time has been getting out of health, losing strength and colour. The doctor is called in; he examines her and finds no evidence of local disease, but that the pulse is more frequent than natural, temperature higher, and breathing quicker. He sees a case where obviously the constitution is gravely distressed and no local foundation to cause the distress. The patient gets thinner and weaker; bye-and-bye a little dulness is found, and the chest becomes flattened, then the ordinary symptoms of phthisis set in, and though they improve from time to time, the main progress is almost invariably downward, and in a period of from two to four years, the case terminates in death. This is an ordinary outline of tubercular phthisis. It is marked at the beginning by the slightness of physical and the prevalence of constitutional symptoms. It is also, as I think, marked by the want of response to almost any treatment.

Here is the second form, a case of pneumonic phthisis. This is the drawing of a lung of a very well-known case in the London hospital, Peter Mackintosh. We examined him and found the usual signs of pneumonia with these modifications, there were diminished tactile vocal fremitus; feeble breath sounds, and diminished vocal resonance.

Many of these symptoms might have suggested the idea of pleuritic effusion, but as there was no displacement of organs, no friction, no variation of dulness with variation of position, and as there was profound constitutional disturbance I knew that I was dealing with a case of pneumonia; but said to my class that the exudation would very probably fail to be melted or absorbed.

The pneumonia came to an end about the usual time. There was no absorption of exudation; he remained months under my care without the smallest change in the solidity of the lungs. About the end of nine months he wanted to go out. After a while he came back again, having caught cold, and soon after the lung began to break, and he continued with symptoms of phthisis for nearly two years altogether under my care at the London hospital. A curious complication occurred. One of my big guns was that, whenever a pneumonic exudation is unabsorbed, within a month of the breakage you will get tubercles in the other lung. In Mackintosh's case, within a month there arose symptoms of disease in the opposite lung, but on *post mortem* examination, I found a very beautiful example of lobular pneumonia, and no tubercles. This was the first time I had not found tubercles produced by the suppuration of unabsorbed deposit; you will recognize such cases of pneumonic phthisis by the fact that there has been no absorption of the deposit, that there is more or less large solidification at the base of the lung, and that that exudation, instead of disappearing, begins bye-and-bye, to break up giving rise to fever and the other symptoms of phthisis.

The second class of cases of pneumonic phthisis is more difficult to recognize. There is no history in it of insidiously rapidly failing health, as in the case of tuberculosis; on the other hand, there is no history of acute attack which may be considered as pleurisy, but there is a history of cough creeping on with a little fever, and increasing without any material impairment to the general health. You shall see a fair man or a fair woman, with light eyes, florid cheek, tolerably well nourished body, few complaints to make except with respect to cough and expectora-

tion. You will find that whilst contitutional symptoms are exceedingly few, the physical signs are very many. You will find the middle part of the lung very solid. Sometimes instead of being absorbed or undergoing fibroid change, the lung disintegrates, the cheesy matter breaking down into small cavities, and then it progresses like an ordinary case of phthisis. In speaking of the clinical character of these cases of caseous pneumonic phthisis, they are not so very clearly, expressed as either the tubercular phthisis, or the common pneumonic phthisis; but keeping in view its characteristics, the considerable extent of uniform consolidation at, say, the upper part of the lung with the comparative slightness of the constitutional symptoms—the occasional melting and absorption of the deposit, or its conversion into fibroid stuff—and the often scrofulous history of the patient, you will not fail to recognize these cases during life.

I must introduce another element of complexity. I have spoken of cases of pneumonic phthisis as chronic, but some times it is an acute disease. Cases of this kind are to be recognized immediately by the circumstance that the disease occurs in the upper lobe, progresses rapidly from above downwards, is accompanied by fever, and either terminates at the end of a fortnight, or within a few weeks in cavities. This form of case of pneumonic phthisis, is the form which used to be called "galloping consumption." I pause to recur to the anatomical question. It is sometimes said by French anatomists that there is no distinction in point of fact between the histological record of the tubercular and the caseous deposit. In the common tubercle, you have the constitutional symptoms being in a marked degree evident at the beginning. In the caseous phthisis you have a very large amount of local lesion with a small amount of constitutional disturbance. It must follow that tubercle is a very curious thing, that for some reason not apparent, the less the anatomical the more profound the constitutional lesion, and the more the amount of physical change, the less the constitutional effect. This seems absurd, and I know of no better argument than this to adduce

against the argument that they are identical. I might adduce a second, not so important, beeause unhappily, not so capable of being used, namely, that I very much doubt that grey tubercles are really absorbed. I do not doubt they may form into fibroid tissue, but that is a rare occcurrence, after we have recognized that they are present in any considerable amount I have seen caseous exudations occur in the summit of the lung and disappear. Even Laennec, himself, admits that in certain circumstances, tubercular infiltration disappears.

Of the clinical character of fibroid phthisis, there can be no doubt whatever. It is marked, as a rule, by inflammatory origin. I have in the London hospital now, three cases upon which I was occupied for some weeks lecturing before I came across the Atlantic. These will illustrate better than an abstract description, one of the origins of this disease. The first man had these symptoms—he is about thirty-six years of age—his right side is extremely contracted, the heart beats under the second rib, he is pretty well in his general health, has no fever, but suffers from a paroxysmal cough, which ends occasionally in vomiting, by which act he ejects a glary mucus, and sometimes a fœtid pus This is fibroid phthisis, because on examining him, there are found signs of two small cavities near the summit of the lung, not dilated bronchical tubes, and their areolæ of elastic tissue from the pulmonary alveoli in the expectoration.

One of the other cases has these characteristics. He is a man about 52, has been eight months under observation, came into the wards of the hospital with a common right pleurisy, had a little effusion at the base of the lung. I said to my class, we will put him to bed, and by rest and diet the effusion may go and he will be well. The effusion went away and when I examined him, I found a to and fro friction. I thought nothing of it, but a fortnight afterwards this to and fro friction was running up the lung and very soon went all over the lung: Notwithstanding all I could do with iodide of potassium, mustard plasters, &c., it would not be influenced. It went on for months and simultaneously with its continuance in the latter

stages of its history, the lung began to contract, the right side distinctly contracted, the ribs fell in, the neck began to swell, the heart was drawn down, bye-and-bye and he began to have a little spinal curvature. In this state I left him. This form of fibroid phthisis is to be recognized by its mode of origin; by the contraction of the lung; by the paroxysmal character of the cough; by the absence of fever; by the slow progression of the disease, and by the displacement of the heart towards the contracted side.

Here is an engraving of a lung which first taught me this form of phthisis. The first patient I had at the London Hospital was a man of 15 stone in weight, a bricklayer, who complained of a cough and spitting up blood. He had been surgically treated for a fractured rib some weeks bofore. I watched him for a year. Step by step his right side began to contract, his cough became more and more paroxysmal, curious changes appeared in the state of the blood vessels, the right side of the neck became smaller, great veins traversed the right side of the thorax, and the right arm became swelled. In this state he complained of the right side, had a paroxysmal cough and an occasional fœtid expectoration, difficulty in breathing, and in ability to sleep. Everybody said he had a tumour or cancer. I began to have my own faith shaken, nnd to believe he had some sort of tumour, although I could not reconcile the symptoms with any disease I knew. I felt satisfied I had to do with a lung which was unfit by some sort of fibroid change. At last he died from a little cold, and he willed his body to be examined by the doctors. The pleura was found an inch in thickness, in addition there was an inch of fat, on the top and side of the lung. There was no tubercle anywhere, no evidence of disease anywhere except that this right lung was reduced to a very small concise form by fibroid change, was coated with lymph, and the lung was eaten into small cavities.

This is a drawing of the lung of a man called Peak. He was brought to me by Dr Pollock of Charing Cross Hospital. This is the case of a lad about 18 years old, who had recurring bron-

chitis and pleurisy of the right side. The whole of his malady was obviously on the right side. He had a contracted right chest, extreme dulness, feeble breath sounds, and hard paroxysmal cough, with fœtid matter. His heart instead of beating fifth and sixth, beat a third from the right rib. It was a tubercular case of fibroid phthisis, with a little irritation of the bronchial tubes. It was exhibited to the Clinical Society; unfortunately it was sat upon by three gentlemen connected with the hospital, who could not see anything remarkable in it, said it was ordinary tubercular phthisis with contraction. Peak died, and, after some considerable difficulty, Dr. Pollock and I succeeded in getting a *post-mortem* examination. We found no disease except in the right lung. The lung was reduced about one-fourth of its natural bulk, was perfectly solid, permeated by one or two dilated bronchial tubes. There was nothing which could be construed into tubercular deposit.

It will be obvious that anatomically there are these three groups met with in lungs of patients dying of phthisis. I hope I have said enough to prove that they are capable of recognition during life, that they are not merely pathologically curious.

If that be so, my contention is that as these groups of phthisis being distinct in their origin, different in their progress, responding differently, ought to be characterized by distinctive names corresponding to treatment.

One other point. These are the three great groups of phthisis, but corresponding to our definition there are other forms which, as pathologically and clinically curious might be mentioned. There are on the table two drawings taken from patients who suffered from the symptoms of phthisis. In one the destructive agents are syphilitic deposits; in the other hæmorrhagic extravasations.

I cannot hope to have solved many of the difficulties surrounding this complex subject; hut if I have succeeded in removing some obscurity and in opening fresh paths of inquiry, I have not in vain occupied your time.

DR. HOWARD asked: Have you noticed whether tubercular

phthisis and caseous pneumonic phthisis occur in children of the same family? Are you of the opinion that they may be alternative complaints in the same family? Are they equally transmissible by inheritance? Have you ever met a case of primary fibroid phthisis not of inflammatory or tubercular origin? Are there means by which, in a case of pleurisy or pneumonia, one might early suspect that this ulterior change of fibroid transformation might be set up; if so, how shall we recognize, at an early stage, the future life history of the original disease? Can you distinguish those cases of chronic tubercular phthisis or caseous pneumonic phthisis, which undergo fibroid transformation from those cases of fibroid phthisis which begin in the *pleura* or as a consequence of pneumonia? Or, in other words, can you distinguish the fibroid transformation which occasionally occurs in the common forms of phthisis from the fibroid transformation which follows pleurisy, on the one hand, or pneumonia on the othe?

DR. CLARK answered:—The first question is do I recognize as a fact that tubercular forms of phthisis and caseous forms of phthisis alternate in same family, and furthermore that people with caseous phthisis may beget children subject to tubercular phthisis? I recognize it fully. It is quite true, and I do not know if it would be fair to assume it as an argument against the position. It is not to my mind. I readily admit, that in children of one family, I have seen caseous pneumonia in one and evidence of tubercular in another. I admit further, as it has been put, that the offspring of persons with caseous phthisis, may be tubercular. Even if I were not able satisfactorily to answer that argument, I should still say that the greater proofs of distinction ought to overrule what that fact suggests. The great facts of distinction are that tubercular history is almost unqualifiedly bad; the caseous history is relatively good, and the progress appears to be quite distinct from that of the other. While the tubercular mischief is scarcely amenable to treatment, the caseous is amenable to treatment. I apprehend that in these cases, the real explanation lies in the fact, that in these instances, during the life of a family, what is possessed by each

of them is a vulnerability of lung, and that circumstances, distinctive in each case, determine in one tubercular, in another caseous phthisis. Chronic tubercular consumption is begun in the body of a man by the transfer of something from the surfaces below the lung or in the body.

The little cellular work is determined by the conveyance to the pulmonary capillaries of something manufactured in the blood or got in the intestinal service.

The two diseases from their very origin, seem to be so distinct, that I am disposed to give them a distinct name. I cannot contend that I have fully solved the difficulties of the subject. I think there is sufficient ground, even on the anatomical side, enough on the clinical side for recognizing them as distinct but names. The second question is: Have I ever met with cases of primitive fibroid phthisis? I am not quite sure. In all the cases of which I have been able to keep accurate records, I am bound to say there is always some history or another of dry fibrous pleurisy, frequent attacks of bronchitis, syphilis, &c. Such a thing may occur, but speaking entirely from my own observation, I am not sure that I have ever seen a single primitive personal case of fibroid phthisis. The third question is, whether there are any means in a given case of pneumonia or pleurisy of determing whether fibroid change is likely to occur. I think there are. If I had a case of pneumonia, and if this case went on past the usual period, and there were no signs of amelioration I should say one of two things now will occur: Either this exudation will break down and we shall have evidence of it in the physical and the constitutional symptoms, or it will wither back into a sort of fibroid mass, and the evidences of that, constitutionally, will be inactive; there will be that the patient will get greatly better and declare there is nothing the matter. Locally, the evidences will be feeble breathing, slight and increasing contraction. If I had a case of simple dry pleurisy, and it went on, I should say if it receives the remedy of rest and restricted movement, the chances are it will go on and produce a fibroid change in the lung—how far I do not know. If the man is a drunkard, it will go on to fibroid phthisis.

I guarded myself against the possibility of misinterpretation by stating that when these cases were advanced it was exceedingly difficult to discriminate, because the symptoms offered were much more referable to mere destruction of the organs than to the destroying agent. If you find the disease begins in the lower part of the lung and progresses slowly upward and has been marked by fever and prostration and loss of flesh and strength and colour, if you find the summits of the lung free, you may safely say you are dealing with an ordinary case of fibroid phthisis. If, on the other hand, you find none of these things, if you find the summit of the lung affected, I know of no means except the history of the case to distinguish between the two. The history of the case, if it were one of sudden origin, of a presumable inflammatory character would lead to the conclusion that it was fibroid ; the insidious origin of the disease would suggest tubercular. Further, if fibroid phthisis is not always confined to one lnng, it is in the majority of cases. I have, even in cases of tubercular phthisis, the appearance of a secondary fibroid combination. So much is this the case, that some people dealing with tubercular phthisis, recommend their patients to become drunkards to prolong their lives.

DR. OSLER asked for a sketch of a few of the principles of the treatment of phthisis.

DR. CLARK said: I am afraid I shall lose what little character I may possibly have gained. I pretend to no special knowledge of the treatment of phthisis. Whenever I encounter any chronic disease, I deal with it on this principle. Every organism has a righting, a repairing, and a resisting power, and it exercises these powers in proportion as we give them fair play, I proceed always in a chronic case to determine what will be fair play for the organism suffering under this chronic malady. Hence, diet, air, attention to the general functions, form always the first points of treatment in such case. Whilst we are ready enough to give a liberal supply of medicines, we too often overoverlook those minute details of daily life which, in the end, make and unmake life. Of tubercular phthisis, I have very little to say. The main affair is the general health. Lowering the tendency to resistance permits the advance of the disease with

which the patient is threatened. If I can keep him free from colds and consequently pneumonias, I am practically doing as much for my patient as I can. There are no principles in medicine; it is one of the most unprincipled of arts. Every organism is somehow or other different from every other, and it contains within itself the laws for its own management. The wise man, he who has the gift as well as the knowledge of healing, is he who with an instinct is ready to discover the laws of the organism with which he is dealing and governs himself accordingly. It would be foolish to say in detail how I should deal with a case of tubercular phthisis. Regulated diet, moderate use of alcohol, air, exercise, avoiding colds are the principal means to be used. I have tried this medicine and the other, hypophosphites, arsenic, iron, &c., but I cannot say, looking at the whole with an honest, critical eye, I can lay my finger on any remedy with any specific influence in it.

As regards caseous pneumonic phthisis, I believe in the efficacy of treatment. In an acute case, I have great faith in treatment. I put my patient to bed and keep him there nntil the temperature falls below 100° however long that may be. The second rule in case where the secretions are scanty, the tongue dry, temperature high, pulse quick, I satisfy myself with a free use of salines and with counter irritation. If I find the patient remaining feverish, I give up my citrate of potash, and put a drachm of antimonial wine into a tnmblerfull of water and make him sup that during twenty-four hours. The skin breaks out into perspiration, tongue becomes moist, expectoration usually begins; then I immediately stop and treat my patiennt with effervescing alkaline salines with quinine and citric acid. I next feed him with milk and beef tea. We often forget, practically, that liquid food goes quickly to the lung. In cases where exudation is going on in the lung, we minister to it by filling our patients with fluid food at short intervals. In rapidly extending pneumonia, I have seen exudation hurried to a fatal end by the administration of fluids every half hour. Food should be giveu in a more solid form and not oftener than every four hours. This is one of the forms in which I believe alcohol to be extremely useful. In cell proliferation, alcohol is useful, and I would extend it to scrofulous diseases generally.

CASES TREATED BY THE THERMO-CAUTÈRE.

By T. G. Roddick, M.D.

Professor of Clinical Surgery, McGill University.

(Read before the Medico-Chirurgical Society of Montreal.)

I have now employed the very ingenious instrument of Dr. Paquelin, known as the Thermo-Cautère, or Gas Cautery, in such a number and variety of cases in both hospital and private practice, and have obtained such admirable results, that I feel bound to advocate its claims as a valuable surgical instrument before the members of this Society. Too great praise, I think, cannot be awarded Dr. Paquelin for his invention, as now we are in a position to obtain the excellent results that no doubt followed the employment of the actual cautery in the hands of the older surgeons, without the dread inspired by the preparation and general surroundings of the *fer-rouge*.

The instrument I show you is manufactured by Messrs. Collin & Co., 6 Rue de l'Ecole de Medicine, Paris, and cost me there the sum of one hundred and forty francs. It consists, as you see, of an ordinary spray-bellows, a spirit lamp, and a flask furnished with a perforated rubber cork, in which benzoline is held. This is a hollow handle, insulated with wood to protect the hands, and to which can be attached any of these platinum heads corresponding to the cautery irons found most useful in practice. Each of these parts is hollow, and must be first heated to blackness in the flame of the spirit lamp, when with the aid of the bellows a blast of benzoline vapour is introduced, which has the remarkable property of maintaining the platinum in a condition of vivid incandescence. This heat can be maintained for an indefinite time by a continuous slight compression of the bellows. Every instrument is generally supplied with three platinum heads, namely, a probe or stylet for touching minute points of ulceration, or for cauterizing sinuses, &c., a hammer for coarser work, and a blunt knife for cutting purposes. This form of knife, with a sharp cutting edge at the point (the gift, by the way, of my kind friend Dr. Ross), is a more recent

addition, and will be found very useful for dividing pedicles or searing nævous growths. Curved knives, scissors, and an ecraseur or guillotine, may now be obtained from makers in good standing. The whole apparatus is packed in this neat box, and will be found exceedingly handy and portable.

There are many little points in connection with the working of the instrument, such as the amount of heat required for a certain purpose, and the pressure that should be used, which experience only can teach. Thus in order to divide skin and muscular tissue, a red heat is required; while for the sealing up of bleeding vessels, an almost black heat is the best. It is surprising what little pain is experienced after the destruction of even a large surface of tissue. In fact, I believe this is the most painless of all escharotics, not excepting nitric acid which hitherto, perhaps, has held the palm.

The following cases have been taken indiscriminately from a number of clinical reports in my possession, although some of them are the most important I have had, as illustrative of the uses to which this valuable instrument can be put in surgery :—

CASE I.—*Lupus*—(Reported by Mr. Mills.)—Moses Fried man, aged about 40, was admitted into the General Hospital November 23, 1877, under my care, on account of a number of lupoid sores, one nearly as large as the palm of the hand, situated over the left back. The scars of an extensive ulceration, confined to that side, were very marked. There was no history of syphilis. Chloroform being administered, the knife of the cautery was applied in a cutting manner to the patches, and lead lotion, followed in twenty-four hours by poultices subsequently applied. The sloughs separated in three or four days, and healing rapidly went on, although it was thought advisable, in about ten days, to reapply the cautery to some suspicious spots. Within three weeks from the time of operation he was fit to be discharged.

CASE II.—*Prolapsus Recti.*—(Reported by Messrs. Gardner and Smith).—Catherine Devine, aged 60, was admitted October 29, 1877, suffering from an enormous prolapse having the

character more of an invagination of the gut. She attributed the condition to obstinate constipation, alternating at times with diarrhœa. The bowel protruded fully four inches, the sphincter being of necessity very much distended. Chloroform was administered, and the part scarred in several places with the platinum knife in the long axis of the tumour, care being taken to go through the entire thickness of the mucous membrane. The protrusion was then returned, a large tent of lint soaked in carbolic oil was introduced into the bowel, and the buttocks strapped closely together with adhesive plaster and a pelvic belt. A grain of opium was given night and morning. On the tenth day an enema was administered, and a copious stool obtained without disturbance of the bowel. The patient was discharged on the fifteenth day, with instructions to attend to the condition of the bowels.

This woman was sent to me by Dr. Reddy about a fortnight since with a return of the prolapse, but not nearly to the same extent as before. A few days ago I scarred the protruding gut thoroughly, and then performed an operation for narrowing the anal orifice, which promises to be very successful. I made two incisions extending from the transverse diameter of the anus to the tip of the coccyx, removing the skin, subcutaneous tissue, and perhaps a few fibres of the sphincter. The edges of the gaps were brought together with wire sutures. Where before the entire hand could be passed into the bowel with ease, two fingers are now with difficulty introduced, and when union is more complete the contraction will still be greater.

CASE III.—*Sciatica*—(Reported by Mr. Sutherland.)—Mary Foley, servant, aged 20, was admitted June 6th, of this year, having suffered pain for some weeks in the course of the sciatic nerve. The ordinary remedies had been tried with little benefit. The cautery was applied in lines down the course of the nerve nearly to the knee. The pain rapidly disappeared, and she was discharged cured on the seventeenth day.

CASE IV.—*Amputation of the Penis.*—An old French-Canadian, aged 72 years, was admitted July 2d, having an extensive epithelioma of the penis, involving the organ up to within

three-quarters of an inch of the pubis. The patient was placed under chloroform. Assisted by Dr. Wilkins, I then first opened the urethra wih a scalpel in the healthy portion, and introduced a No. 12 elastic catheter into the bladder. Then with a sawing movement of the cautery knife, I removed the entire organ flush with the pubis, leaving a little more of the spongy portion than the corpora cavervosa. Not a drop of blood was lost. The catheter was shortened and secured in situ by means of this very ingenious little arrangement devised by Dr. Bell, the Assistant House Surgeon of the Hospital, and which can be adapted to any part of a catheter, and to an instrument of any size. The urine was carried off by a piece of elastic tubing. Putrid infection, so very apt to ensue here, was avoided by the constant application to the burnt surface of carbolic oil. The catheter was removed for the first time on the third day, and subsequently introduced for an hour daily in order to prevent undue contraction of the urethral meatus. On the twenty-first day (July 23rd) the patient was discharged cured, and has reported himself in good shape on two or three occasions since.

CASE V.—*Removal of Enlarged Gland.*—Thomas Butler, aged 27, was admitted with a gonorrhœal bubo, which had been incised some time previous. I enlarged the original wound, and found a gland of the size of a hen's egg separated from the skin and underlying structures, firm and apparently having no disposition to break down. The man stated that things had been in very much the same condition for two months. I applied first chloride of zinc paste, but finding that method of treatment of little avail, I dissected out the entire gland with the hot knife. After the removal of the slough, the part healed from the bottom with marvellous rapidity, and the man was discharged cured on the twenty-ninth day after the operation.

CASE VI.—*Tracheotomy.*—On the 24th of February last, Dr. Ross and I were summoned to the Hospital to perform tracheotomy in a case of diphtheria under his care. The child was *in extremis*, and the veins of the neck were very turgid. With his concurrence I made the ordinary incision through the

soft parts with the cautery knife, opening the trachea, however, with the scalpel. The operation was absolutely bloodless. The child rallied for some hours, but at length succumbed to blood contamination.

CASE VII.—*Hæmorrhoids.*—Mary Kelly, aged 27, came under treatment July 29, 1878, for several very large hæmorrhoidal tumours. An operation for their removal was performed with Mr. Henry Smith's clamp, the platinum point of the thermo-cautery being substituted for his more cumbrous irons. A large mass of thickened tissue fringing the anus was removed with the hot knife. The patient was allowed to sit up on the eighth day after operation, and was discharged August 14.

CASE VIII.—*Phagedenic Ulceration.*—Philip Gilison, a lad of 19, having a distinct history of chancroid, was admitted January 9 of this year with an enormously swollen condition of the penis and a most offensive discharge. The prepuce, which was so œdematous that the glans could not be exposed, was slit up freely along the dorsum, when a state of things which only phagedenic ulceration can induce, was brought to view. Nearly one-half the glans was already destroyed, and not a little of the body of the penis beyond the corona. As soon as the pressure exerted by the prepuce was withdrawn, the bleeding became furious, and, indeed, he had already, on two notable occasions, lost large quantities of blood. I rapidly removed the sloughs, divided any bridges of tissue that remained, and applied the cautery unsparingly. An uninterrupted convalescence ensued, and the patient was discharged on the 31st day of the same month.

CASE IX.—*Subacute-Synovitis of the Knee-joint.*—(Reported by Mr. McArthur.)—This is a case that came under my care on the 3rd of the present month, and which I think worthy of notice here. From the notes of my clinical clerk I gather that the patient, Edward Foley, 24 years of age, has long been of intemperate habits, but never had any ailment, with the single exception of an attack of gonorrhœa two months ago, which lasted a very few days, and has never shown any

signs of recurrence. The right knee became swollen some ten days before admission, and now measures (I quote from the report) in circumference an inch and a half more than the healthy joint. The patella floats in the fluid, so that on percussion it is heard to click against the condyles beneath. There is very little heat, and no pain elicited excepting when he attempts to walk.

October 5th.—The joint was to-day scored on either side with the thermo-cautery, and the limb was placed at rest in a Macintyre splint. Iodide of potash in ten grain doses thrice daily was also ordered.

7th.—Everything looking improved. Already on measurement there is a reduction in size of ½ of an inch since the cauterization. Poultices are made to replace the lead lotion.

9th.—Knee-joint increased in size ¾ of an inch since the operation, on account of the cellular infiltration induced. Some enlargement of the glands in the groin. No pain in the joint.

14th.—The superficial sloughing consequent on the cauterization is almost gone; circumference diminishing rapidly; joint has now almost a normal appearance.

17th.—Perfectly well; will be discharged in a couple of days.

CASE X.—*Extensive Ulceration following Small-pox.*—(Report furnished by Dr. Gardner.)—Mrs. B., aged about 30, at the eighth and a half month pregnancy, was taken with small-pox. The proper rash of the disease which made its appearance at the usual time, was preceded twenty-four hours by an erythematous rash on the abdomen, groins, inner aspect of thighs and arm-pits. This faded gradually, disappearing in a few days. The patient was delivered in about fifty-two hours after the setting in of the initial fever. Six hours after the delivery when I first saw her, the temperature was 104° Fah. The case throughout was marked by persistent high temperature, which however, was easily reduced temporarily, by quinine in antipyretic doses. Diarrhœa occurred more than once during the course of the attack. There was nothing at any time

abnormal in the lochia. At the commencement of the stage of pustulation, bullæ of the size of a shilling, appeared in considerable numbers on both shins, the outer surface of the right and the posterior aspect of the left thigh. These enlarged and burst, but instead of healing, proceeded to ulcerate rapidly by their edges, the whole thickness of the true skin being involved in parts, until they coalesced, forming large painful ulcers. Constitutional symptoms in the shape of high fever and debility became alarming, rendering it necessary to act with decision and promptitude if the patient's life were to be saved. In consultation with my friend, Dr. Roddick, it was decided to apply the actual cautery to the whole of the now extensive ulcerating edge, by means of Paquelin's Thermo-Cautère. The patient being under the influence of ether, this was accordingly done most thoroughly. The length of ulcerating edge thus cauterized could not have been less than three feet. Linseed poultices were then applied, the sloughs separating in due time displayed healthy granulations. The ulcerating process was arrested from the time of application of the cautery. After the separation of the sloughs the sores healed very quickly; this seeming to be much hastened by the little islands of undestroyed skin. which represented the centres of the bullæ. Six weeks after the application of the cautery, (the ulcers had been healed for some time), the patient had nearly regained her ordinary health and strength, but suffered on walking from a feeling of heat and tension in the cicatrices—due doubtless to their contraction.

I have been furnished by Dr. Burland of the General Hospital with brief reports of other fifteen cases in which the cautery has been employed as a counter irritant in sciatica and in spinal and joint affections, especially morbus coxæ, where I invariably use it; and as a cautery in cases of lupus and other suspicious ulceration, and for the removal of vegetations and small growths of all kinds. It is invariably ready at hand to assist, if necessary, in the arrest of hemorrhage during major operations. A few days since I found it eminently serviceable

in arresting the oozing from the stump of a penis amputated in the ordinary way. In operations on the tongue, and for the removal of ovarian and fibroid tumours, it makes a most excellent substitute for the hot iron. In one of the Dispensaries for Women in London I found the surgeon using the probe cautery in preference to the ordinary escharotics, in cases of extensive uterine ulceration, and all polypoid growths were removed with the knife or guillotine. For the alarming hemorrhage of uterine cancer, nothing could be more prompt and effectual than the actual cautery applied in this way.

There are cases however, in which I am not inclined to advocate its employment. I should be disposed, for instance, in cases of malignant disease of the tongue. and especially when the floor of the mouth was involved, to remove the organ either with the knife or chain ecraseur, trusting to the cautery to arrest hæmorrhage only. An inordinate amount of cellular and lymphatic inflammation is almost certain to follow such extensive burning of tissue in this neighborhood. In fact in one case already published by myself—alarming cellulitis followed the removal with the hot knife, of a small epitheliomatous growth from the floor of the mouth. In tracheotomy also when skilled assistance is available, I think it should be employed only as a styptic. In Dr. Ross' case already referred to in which the hot knife was used, I had great difficulty in keeping track of the anatomy of the parts on account of their charred condition, and when reached, the trachea was with difficulty cleaned up and made ready for opening. I would perform tracheotomy with the hot knife, only in the case of a very fat child, where the venous engorgement was intense, or where, in any case, I had no skilled assistant.

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TRACHEOTOMY IN LARYNGEAL DIPHTHERIA;

BY J. W. MACDONALD, M.D., M.R.C.S., Edin.

The operation of tracheotomy, perhaps more than any other, places in our hands a means of saving lives which would otherwise be most certainly lost. As an instance of the value of this operation, even in the most desperate circumstances, I beg leave to report the following case:—During an epidemic of diphtheria in the beginning of 1877, I attended R——, a little girl æt. 12. I first saw her on Jan. 2, the third day of her illness. There was a considerable amount of false membrane about the tonsils, and evidence of the disease having spread to the larynx. As the danger to the respiration did not seem imminent, I applied liq. ferri-perchloride to the throat, and used insufiations of powdered alum, and prescribed quinine and iron internally. Hot fomentations were ordered to be applied to the throat, and steam inhalations containing permanganate of potass were to be freely employed. For the next four days the symptoms improved.

January 7th.—The laryngeal symptoms are not so favorable. I asked the parents to send for me if they found the patient's breathing to become more obstructed. They were very much opposed to the operation; and next day, although the child was in a dying state, they did not send me word. Hearing of this from another source, I drove to the house, a distance of four miles, and found her evidently breathing her last. The surfaces of the body was cold, no pulse could be felt at the wrist. She was totally unconscious, and the breathing consisted of gasps, with long intervals between them. With all possible haste I had her placed upon a table and proceeded to perform tracheotomy. By this time the breathing had completely stopped. I was obliged to hurry through the operation, and without any assistance, as everybody had fled in terror from the room. Having inserted the canula, I immediately commenced artificial respiration, and after persevering for some time, had the satisfaction of seeing the breathing restored. She now began to regain consciousness, and by the motion of her lips we guessed

she wanted water, which was given. Her thirst was insatiable. I placed a piece of gutta-percha tissue between the guard of the canula and the skin, and covered the neck with a woolen cloud. About day-break on the following morning a mesenger came to me with the intelligence that the child had managed to pull the tube out and was choking. I set off at once, and with very little hope of finding her alive; but the father had, in the meantime, plucked up courage to insert the tube, and on my arrival I found her breathing freely.

12*th*.—I removed the canula, and found that she could breathe perfectly by the mouth. The wound was brought together by adhesive plaster. She has a bad cough, and expectorates some blood, with large quantities of mucus. Her appetite is good; pulse 90; temperature 99°.

15*th*.—She has been sitting up all day; eats heartily, and feels well. The wound healed very satisfactorily; by degrees her strength returned, and she has since been quite well.

Antigonish, N.S., Dec. 2, 1878.

Reviews and Notices of Books.

The Organic Constituents of Plants and Vegetable-substances, and their Chemical Analysis.—By DR. G. C. WITTSTEIN, Authorized Translation from the German Original. Enlarged with numerous additions by BARON FERD. VON MUELLER, C.M.G., M. & Ph. D., F.R.S. Melbourne: McCARRON, BIRD & Co., 37 Flinder's Lane West, 1878.

We believe this is the first time a Canadian Reviewer has been called upon to notice a medical publication issued from the press of Australia. That far off continent has long been famed for its gold fields. It may yet be as well known for its literary possessions. The volume before us is certainly evidence that there are mines there which, when worked, will yield abundance of scientific lore. The German Original of Dr. Wittstein is, in itself, a learned production of high order. To give our readers an idea of its scope, we may mention that it is divided into two

parts. The first is spread over three sections, which are assigned to "proximate constituents of plants and vegetable substances as far as hitherto known; their properties; their mode of preparation and quantitative estimation; molecular weight of organic compounds; synopsis of those plants which yield the proximate constituents under the former, and a catalogue of the vegetable pointed out in them with the order systematically arranged." The second part, likewise, comprises three divisions. The first is devoted to the account of "the apparatus required for the phyto-chemical analysis." The second specifies the chemicals that are needed to perform the foregoing examinations. And the third is taken up with explaining the "general systematic course" of the analysis just named. Lastly, there are added "tables of comparison." Great though the mass of information be which is afforded through these various sources, —and from which the extensive research and Chemico-Therapeutical culture of the author are conspicuously apparent— greater still are the merits of the Australian edition. The translator and editor, who has proved himself well fitted for the task in which he engaged, tells us in his preface that he has supplemented "the original work with many additional notes on new and well-authenticated data, which transpired during the last few years, some claiming local originality here."

The present treatise purports to be all facts,—and no theories. It is purely descriptive. At a rough guess we should say it touches upon 800 different subjects, at least, if not many more. This is a formidable array. But, as the book will be chiefly valuable for reference, this comprehensiveness adds greatly to its value. The topics are of necessity not dwelt upon with equal extent. A judicious measure has been observed throughout, and the largeness or scantiness of the account given of each article has been regulated according to its degree of importance or rarity.

To our readers who have not given attention to the modern advances in the branch of science upon which this new work treats, there will be found much to baffle and confound and amaze. The very names of the objects discussed will be stun-

ners, *e. g.*, Gardenin, Jurubebin, Nucit, Ostruthin, Picrorocellin, Thevetosin, &c., &c. But with the novelties, they will also find the more familiar substance, all in their place. and carefully described.

The manner in which the painstaking translator has accomplished his task reflects credit upon his abilities. He has spared neither time nor money. While he has devoted much labour to the enterprise, —the bringing of it out has been at his own expense. But the only reward to which he looks, is—" that local observers in these *Southern* colonies, as well as in other countries, teeming with on almost endless number of yet novel objects for phyto chemic inquiry for additional resources, may be armed with auxiliary means for extending not only in abstract the science of Chemistry, but also the precincts of Therapeutics." And if this be the result, then our expectations will also be made good of what may yet be yielded by the Australian mines of professional lore.

Cyclopædia of the Practice of Medicine.—Edited by Dr. H. VON ZIEMSSEN. Vol. xvii. Grand anomalous of Nutrition and Poisons. By Prof. H. IMMERMANN, Prof. R. BOEHM, Prof. B. NAUNYN, and Prof. H. VON BOECK. Translated by W. BATHURST WOODMAN, M.D., and J. BURNEY YEO, M D., of London; E. S. WOOD, M.D., of Boston; CHAS. EMERSON, of Concord; PORTER FARLEY, M.D. of Rochester, and A. B. BALL, M. D., and E. WALLER, Ph. D. of New York.—ALBERT H. BUCK, M.D., New York, editor of American edition. 8vo. pp. xiv. 968. New York: WILLIAM WOOD & Co., 27 Great Jones Street, 1878.

The first article from the pen of Immermann forms the completion of the subject on the general anamolies of Nutrition. Hœmophilia, or what he terms the bleeder disease, is the first section of this article, from this we learn that the earliest historical record of the hœmorrhagic diathesis is found in the writings of an Arabian physician who died at Cordova in the 12th century. This writer had no knowledge of this disease except what he had heard from persons who were said to be affected with this idiosyncracy, nevertheless, his descriptions

are so vivid as to be readily recognized to correspond with the same affection as occasionally seen in the present day. After giving an interesting historical record of this disease the author points to the definition of the disease hæmophilia. He considers it to be a congenital and habitual hœmorrhagic diathesis, never seen except in young persons, at least, the tendency to hæmorrhagia is a congenital defect seen in infancy and childhood, and which, as a rule, continues throughout life. He remarks "it is uncommon for an individual who has been a marked bleeder in infancy, and in whom, therefore, the disposition was presumably congenital, to lose the idiosyncracy in early youth and to remain thereafter entirely free from hæmorrhagic attacks."

The author then passes on to a description of the disease, its symptomatology, anatomical changes, complications, nature, diagnosis, duration, prognosis and treatment. An allied affection, scurvy, is the next section taken up, and which is discussed in the same systematic manner, after which we have a description of the disease called Morbus Maculosus Werlhofii. These form the first article in the volume, and it is apparently full and exhaustive, occupying some 280 pages of reading matter. The rest of this volume is devoted to the subject of poisons. Boehm gives the first paper in which he discusses poisoning by the metalloids, mineral and vegetable acids, alkaline earths and their salts; poisoning by anæsthetics and other carbon compounds, and poisoning by tainted articles of food.

Naunyn writes an article on poisoning by the heavy metals and their salts: in this article the author includes arsenic and phosphorus.

Vegetable poisons are next discussed by von Boeck. In this article all the poisonous plants and their active principles are considered, the article closing with an account of poison fungi. The edible fungi or mushrooms are likewise given, as also the symptoms induced by eating decomposing fungi. This volume is a most important and useful addition to the series in this cyclopedia, and adds materially to the general interest of the work.

On Rest and Pain.—A course of lectures on the influence of mechanical and physiological rest in the treatment of accidents and surgical diseases.—By JOHN HILTON, F.R.S., F.R.C.S., &c., &c. Second edition, 8vo., pp. 299. New York: WILLIAM WOOD & Co., 27 Great Jones Street, 1879.

These lectures are too well known to demand an extended notice at our hands. They were first delivered by Mr. Hilton before the Royal College of Surgeons as early as the year 1860, and still they may be read with advantage and instruction, a lot which does not fall to every work after a lapse of eighteen years. This is a reprint of the second edition of these lectures, which appeared in London some two years ago under the editorial guidance of Mr. Jacobson, aided by the author. It was the intention of Mr. Hilton to have enlarged the work by the addition of material gathered from other surgical observations, but all having the same end in view, namely, that of illustrating by clinical records the advantages to be gained in a practical sense of the recuperative powers of Nature, "aided by the suggestions of a thoughtful surgeon." Throughout these lectures the author emphatically points to the therapeutic value of mechanical and physiological rest in the treatment of surgical disease. It is a work that has been regarded with general favour. Our object now in noticing it is to call attentiou to the republication of this work as forming the first of the series of Messrs. Wood's Library of Standard Medical Works. We alluded on a former occasion to this scheme, but it may have escaped the observation of our readers, and we conclude this notice with an extract from a circular received from the Messrs. Wood. It is understood that the intention is to publish each year twelve volumes of standard medical works. The publishers look for the support of the profession in this enterprise, and we can only remark that if the series are brought out with the same care and style as this, the first volume which is before us, that our medical friends will have in the course of a few years a handsome library of useful medical works at a nominal price. The circular concludes as follows:—

"Will you kindly have this volume noticed at an *early* day that we may avail ourselves of the influence of your journal in obtaining subscriptions to the series?

"To meet the views of all classes, we have concluded to take subscriptions:—1st. The $12.00, payable on delivery of the first volume, in which case the volumes are all delivered *free*, by mail, from New York. 2nd. Payable $6.00 semi-annually, in January and July, in which case the subscriber pays express charges on the January and on the July volumes, the other volumes being sent *free*, by mail; and 3rd. Payable monthly at $1.25 per volume; in this case the volumes are each delivered *free*, by express or carrier, C. O. D."

Cyclopedia of the Practice of Medicine.—Edited by Dr. H. ZIEMSSEN. Vol. XIII. *Diseases of the Spinal Cord and Medulla Oblongata*—By PROF. W. H. ERB. Translated by E. G. GEOGHEGAN, M.D., of London: E. W. SCHAUFFLER, M.D., of Kansas City; D. F. LINCOLN, M.D., of Boston; JOHN A. MCCREERY, M.D., of New York; ALBERT H. BUCK, M.D., New York, Editor of American edition. 8vo., pp. XII. 975. WILLIAM WOOD & Co., 27 Great Jones Street, New York, 1878.

This is the fourth volume on diseases of the nervous system and is devoted to affections of the medulla spinalis and spinal cord. In the arrangement the author deems it advisable to give, as an introduction to the history of these diseases, a brief statement of the macroscopic and microscopic anatomy of the cord and its membranes, together with its physiology, and in following this arrangement he remarks that he feels justified in so doing by the fact that a knowledge of these things is essential to the proper understanding of these diseases. The minutiæ of subjects of this nature are apt to escape the memory of the busy practitioner and would have to be searched for in text-books not always at hand, furthermore, when found the description is not always given with due regard to a knowledge of or connection with pathology.

Under the heading of general symptomatology we have the several sections of disturbance of sensibility, disturbance of mobility, disturbance of reflex activity, vaso motor disturbance, trophic disturbance, disturbance of urinary and sexual apparatus, disturbance of digestion and defæcation, disturbance of respiration and circulation, disturbance of the pupillary fibres, cerebral nerves and of the brain itself.

Of the causes of disease of the spinal cord there are mentioned sexual excesses, influence of age and sex, disturbance of nutrition, propagation through morbid processes existing in other parts extending to or propagating disease in the spinal column, exposure to cold, excessive exertion or physical influences, poisoning and the local development of infectious diseases, acute disease, and the irritation depending on disease of the other organs.

The diseases of the membranes of the spinal cord forms the subject of the next article, in which we have discussed hyperæmia of the membranes of the cord itself, meningeal hæmorrhage, inflamation of the spinal dura mater, inflamation of the spinal pia mater the acute and chronic form, tumours of the spinal membranes, and as an addendum, the changes met with in the spinal membrane which are without clinical significance.

Diseases of the spinal cord itself is the next subject given, hyperæmia and anæmia of the cord, spinal apoplexy, wounds of the cord, slow compression of the cord, concussion of the spine, spinal irritation, Myelitis, Tabes Dorsalis, and various degrees of paralysis. In the last section is considered the diseases and injuries of the medulla oblongata, and tumours of the medulla. The work seems to be abreast of the times; it is full without being tedious, and the descriptions are clear and readable. The translators have performed their task well, and the volume is produced in the same excellent style as those that precede it.

Extracts from British and Foreign Journals.

Unless otherwise stated the translations are made specially for this Journal.

Caustic Alcohols.—On the remedial application of the Ethylates of Sodium and Potassium, or Caustic Alcohol. By BENJAMIN RICHARDSON, M D., F.R.S.—The great interest displayed at the last meeting of the Medical Society of London on the subject of the ethylates of sodium and potassium, which I introduced into medicine in the year 1870, leads me to think that a brief description of these substances and their medicinal application may be of interest to the wider circle of medical practitioners who are readers of *The Lancet*.

The ethylates first came into my hands for study when I was conducting a series of experimental inquiries on the action of the different alcohols. They are sometimes called alcohols because in them the atom of hydrogen which in alcohol is, with its radical, combined with oxygen, is replaced by an atom of sodium or potassium. Thus, taking ethylic alcohol, which is composed of the radical ethyl (C_2H_5), hydrogen and oxygen, as the type, the sodium or potassium replaces the hydrogen:—

Ethylic Alcohol.	Sodium Alcohol.	Potassium Alcohol.
$\left.\begin{matrix}C_2H_5\\H\end{matrix}\right\}O$	$\left.\begin{matrix}C_2H_5\\Na\end{matrix}\right\}O$	$\left.\begin{matrix}C_2H_5\\K.\end{matrix}\right\}O$.

The first object of research was to ascertain what would be the effect of introducing a new element, by substitution, into a substance,—alcohol,—the physiological action of which was understood; and the subjoined description formed part of my report to the Britisn Association for the Advancement of Science in 1870.

Sodium Alcohol, or *Ethylate of Sodium*, is prepared by treating absolute alcohol with pure metallic sodium. So soon as the sodium comes in contact with the alcohol there is escape of hydrogen, and the addition of sodium has to be continued until action ceases. I find it good to increase the temperature gradually as the action declines. At last there is obtained a thick,

nearly white product, which is a saturated solution of sodium alcohol. From the solution the ethylate of sodium cryatallises out in beautiful crystals.

When the ethylate is brought into contact with water it is decomposed, the sodium becoming oxidised by the oxygen of the water to form sodium hydrate, and the hydrogen of the water going to reconstitute the ethylic alcohol.

The change of ethylic alcohol into sodium alcohol transforms it from an irritant to a caustic. Laid on dry parts of the body the sodium alcohol is comparatively inert, creating no more change than the redness and tingling caused by common alcohol; but so soon as the part to which the substance is applied gives up a little water, the transformation I have described above occurs; caustic soda is produced in contact with the skin as water is eliminated by the skin, and there proceeds a gradual destruction of tissue, which may be so moderated as hardly to be perceptible, or may be so intensified as to act almost like a cutting instrument.

Potassium Alcohol, or *Potassium Ethylate*, is made in a similar manner as sodium ethylate—viz., by bringing pure potassium into contact with absolute alcohol. The action of the potassium is much more energetic than that of sodium I prefer to immerse the potassium under the alcohol in a small glass bell, from which there is a tube to allow of the escape of the liberated hydrogen. When saturation is complete, a thick and almost colourless fluid is formed, from which the ethylate may be obtained in a solid crystalline state. Exposed to water, the potassium ethylate is transformed, as is the sodium ethylate, into ethylic alcohol and potassium hydrate. The action of this compound on animal tissues, living and dead, is the same as that of the sodium compound, but is more energetic.

PRACTICAL USES OF SODIUM AND POTASSIUM ALCOHOLS.

I do not as yet see the means of applying readily these two active alcohols for internal administration. but I can predict for them a very extensive application for external purposes. They are most potent caustics. In some cases they may be employed to destroy rapidly such morbid growths as are not favourable

for excision by the knife. In many cases of cancer they will prove invaluable, and will, I believe, exert a direct local curative influence. Injected into morbid growths, they would so quickly destroy them that the action might have to be conducted while the body was under the influence of an anæsthetic.

In being applied direct to the sensitive unbroken skin, I find that their destructive action is less painful than could be expected. I have made with both compounds a superficial eschar on my arm with no more pain than a slight tingling warmth. What is more, when pain is felt, it may be checked quickly by dropping upon the part a drop of chloroform, which decomposes the alcohol, converting it into chloride salt, and an ether—triethylic —which is inert locally. Again, I find that these alcohols dissolve some of the vegetable alkaloids. Thus opium may be dissolved in them, and a solution of opium in caustic alcohol is made directly by mere addition of the narcotic to the caustic spirit. Practical men will see the advantages of combinations of these alcohols with narcotics. The practice opens the way to one of the greatest needs of medicine—a sure, rapid, and painless caustic.

The caustic alcohols may be used in combination with local anæsthesia from cold. A part rendered quite dead to pain, by freezing with ether spray, could be directly destroyed by the action of caustic alcohol—a practice very important in the treatment of poisoned wounds, such as the wound from the bite of a snake or rabid dog. It is by no means improbable that some cystic tumours may be cured by the simple subcutaneous injection of a little of these fluids after destruction of sensibility by cold.

Potassium and sodium alcohol, added to the volatile hydride of amyl, dissolve in the hydride and produce a caustic solution. When this solution is applied to the skin, the evaporation of the hydride takes place, and a layer of the caustic substance is left behind. This application would prove very useful to the surgeon in many cases of disease.

The action of the ethylates on the blood is extremely rapid and marked. The red corpuscles are brought by it into solution,

and there forms (quickly in some cases) an almost instant crystallisation of blood; the crystals are acicular, and spread out in arborescent filaments. The arborescent appearance is identical with the crystallization of the ethylates themselves, but the smaller radiant crystals are due, I believe, to the crystallization of the crystalloidal matter of the blood-cells. They are singularly like the crystalline forms which have been described, since the time of Dr Richard Mead, as occurring in the blood after infection by the poison of the viper. One other peculiarity in the action of the ethylates on blood is worthy of notice: while they seem to attack and dissolve the red corpuscles vigorously, they act with comparative slowness on the white corpuscles, so that we may see a white corpuscle floating uninjured in a sea of red colouring fluid previous to crystallization, and even adhering to the crystalline points after crystallization.

The ethylates possess also powerful antiseptic properties, so that even nervous matter, which of all animal substance is most prone to decomposition, can be long kept in good preservation in the presence of them.

This was my report in the year 1876 on these ethylates, and since then I have used them often in practice with much success. The ethylate of sodium is the most manageable. It is very easily made, and its caustic property can be changed in different specimens, to suit different cases. The solution I use is one of half saturation, and I keep the solution in a bottle having a glass rod descending from the stopper, the end of the rod being somewhat pointed. With this rod I lift the solution from the bottle and apply it from the point of the rod. At one time I used a glass brush for the purpose, but I found the brush objectionable, the small fibres of glass being disposed to break too easily.

The first idea that occurred to me in respect to the application of the ethylates was founded on their action physically. It seemed to me reasonable to suppose that if the ethylate were applied to a moist external growth there would be produced two changes: a caustic action would be set up, and at the same time the alcohol would cause instant coagulation of the fluids of

the part, so that the destruction of structure would be purely local and concentrated. In addition to this there would be the advantage of the antiseptic action, which is so marked. Three forms of disease were, I thought, amongst the best for its use—cutaneous nævus, lupus, and malignant ulcer.

Treatment of Nævus with Sodium Ethylate.

In 1870 I treated with the ethylate a case of nævus on the neck of a child two years old. Not more than six applications of the fluid were made when the nævus was entirely removed, and a sound surface left. The nævus in this instance was so small I did not consider the trial of sufficient value; but soon afterwards my friend, Mr. Gay, was good enough to show me a case of nævus of the scalp in a child under his care at the Graat Northern Hospital. The nævus was of the full size of a half-crown, and extremely prominent. It had been treated on various plans—by tying, by nitric acid, and other methods,—but without success. Mr. Gay having consented to my request that the ethylate should be applied in this case, I sent a specimen of the remedy to the hospital for use there. Instead of this the patient was sent to my house that I might apply the caustic myself. I commenced by covering the nævus lightly with the solution. The application gave very little pain, but soon a dark surface showed that the caustic had taken effect. Three days afterwards a firm hard encrustation had formed where the caustic had been applied, which encrustation I did not then remove. A few days later, the hard crust being loose, I gently raised it away to find the nævus greatly reduced in size. The ethylate was again applied to the surface of the nævus, and the same process was continued until the nævus was entirely removed, and a natural surface was left. The case was under my treatment nine weeks and three days. Some time afterwards the child was brought to me so completely well that it was not easy to discover where the nævus had been.

Dr. Brunton's cases, which he so ably reported at the Medical Society, are similar in kind, and his results are equally good. I referred at the meeting to some other cases in which I had

used the ethylate. These I will notice at length on some future occasion. It is better now for me to give one or two practical hints for those who wish to use the ethylates.

Practical Notes.

In making the ethylate of sodium, which is the most manageable, it is best not to make much at a time. Put half a fluid ounce of rectified alcohol (sp. gr. 0·975) into a two-ounce test-tube, set the test-tube up in a bath of cold water, and add, in small pieces at a time, some cuttings of pure metallic sodium. A gas, hydrogen, will at once escape. Add the sodium until the gas ceases to escape, then warm the water in the bath to 100° F., and add a little more sodium. When the gas again ceases to escape, stop the putting in of more sodium; or, if crystallization takes place, then stop. Afterwards cool down 50° F., and add half a fluid ounce more of alcohol. This will give a good working solution, which can be made more active by adding sodium, or less active by adding alcohol.

Put the solution in a glass stoppered bottle, and have the bottle always well closed.

Keep the bottle always in a cold place. Once, a bottle of ethylate, left during summer time exposed to the sun in my laboratory, exploded, so that the bottle was broken and the contents spilled.

Always apply the ethylate with a glass rod.

The ethylate solution must not be mixed with other fluids than alcohol. Mixed with chloroform, in quantity, a violent action is set up, and the ethylate is decomposed into chloride of sodium and an ether—triethylic.

The ethylate is not so manageable for subcutaneous injection as for application to the surface by the glass rod. It specially deserves trial in lupus, in malignant ulcer, and in vascular cutaneous growths and excrescences.

The addition of an alcoholic solution of opium lessens the pain of an application.

The Royal Medical and Chirurgical Society.—The first paper read was that on a case of Thyrotomy for the Removal of a Membrane completely Obliterating the Larynx, by Dr. FELIX SEMON. The patient had attempted to cut his throat, and as the wound healed it was found necessary to perform tracheotomy. The voice gradually became diminished, and laryngoscopically a tough dense membrane was found occluding the larynx between the false vocal cords, with evidences of anchylosis of the left arytenoid cartilage. The operation was undertaken to remove this membrane, and was the third case on record in which thyrotomy had been practised for such a purpose. A modification of Trendlenberg's tampon was employed to plug the trachea. The author urged great caution in the administration of chloroform through the tampon-cannula, the liability to asphyxia being greater than when inhaled in the ordinary way. In the operation itself he had intended to only partially divide the thyroid cartilage, leaving its upper part uninjured, so as to ensure subsequent apposition of the parts, but he was compelled to fully divide it. He then found that there was a second membrane in the larynx, at the level of the original suicidal wound, that visible with the laryngoscope being probably due to the adhesion of the false vocal chords. He urged, therefore, im similar cases, an examination through the tracheotomy wound, to ascertain the presence of other membranes. The lower and primary membrane was being excised with a pair of curved scissors, when the patient began to cough violently. It was thought that the tampon-cannula did not sufficiently occlude the larynx, and that perhaps blood had entered the bronchi. In reinflating the tampon the cough was replaced by an intense asthmatic paroxysm marked by extreme inspiratory dyspnœa. No obstruction was found in the tube, but on partial evacuation of the tampon-bag the dyspnœa ceased, showing, the author held, that an excess even of equal pressure on the inner walls of the trachea sufficed to produce reflex spasm. The sudden cough was in corroboration of Stoerck's statement that the posterior wall of the larynx, and especially the interarytenoid fold,

excite cough when touched, whilst the anterior and lateral walls of the larynx are not so irritable. The wound healed by primary union, but in spite of the daily-repeated and long-continued passage of bougies through the mouth, there was gradual cicatricial stenosis of the larynx, and a month after the operation no air passed through the mouth.—The President complimented Dr. Semon upon the interest of his paper, on account of its novelty, and the candour and lucidity with which it was written. Dr. Andrew suggested that the asthmatical attack which occurred during the operation, characterized especially by marked inspiratory dyspnœa, was due to narrowing of the trachea just below the point where it was unduly distended by the bag of the tampon. Dr. Semon felt sure there was no narrowing of the trachea, for he was able to explore it thoroughly with a goose-quill, and although the dyspnœa was both expiratory and inspiratory, it was chiefly the latter; but he believed it produced by reflex action from pressure on the nerves supplying the mucous membrane, and thought this borne out by some experiments which had been made. Mr. M. Baker suggested that the elastic bag of the tampon may have been pressed down and caused obstruction. Narrowing sufficient to produce dyspnœa would not be proved by a quill. Mr. Holmes had had but small experience in thyrotomy, but he had seen no need to employ sutures, and criticised the procedure suggested by Dr. Semon, of not completing the division of the cartilage, as diminishing the area for manipulation, and preventing the complete exposure of the ventricular bands. Dr. Semon explained that one object he hod in view was to preserve the anterior commissure of the vocal cords, and thus prevent that total loss of voice which Bruns had shown to follow after complete thyrotomy.—*The Lancet.*

Treatment of Neuralgia by hypodermic Injections of Ergot.—Marino recommends the injection of from 0·15 to 0·25 gr. dissolved in distilled water. This may be repeated once or twice, though, perhaps not more than six times, and acts well in certain forms of neuralgic pains, especially in the douloureux. It appears to act less favorably in sciatica.—(*Imparciale*, No. 8, 1878.)

Treatment of Diarrhœa by Oxide of Zinc.—Dr. Jacquier has followed in the service of Dr. Bonamy at Nantes, the good effects of the employment of oxide of zinc in diarrhœa. The formula which he has employed is the following: Oxide of zinc, 54 grains; bichromate of soda, 7½ grains; in four packets, one to be taken every six hours. In all the cases which he observed by Puygautier, the cure was even more rapid, since in only one case were three doses of the medicine required. The results are considered to have been more satisfactory, inasmuch as in several cases the malady had endured from one to many months, and other methods of treatment had not produced any improvement. Thus he concludes that, although by no means to be held as exclusive treatment, the employment of oxide of zinc deserves to be more generally known as useful in diarrhœa.—*British Med. Journal*, Sept. 28 1878.

A huge Vesical Calculus.—Dr. Brown, of Barnsbury, brought to the first meeting of the Islington Medical Society, on the 22nd, ultimo, a human bladder containing three stones, weighing in all one pound and a quarter, less twenty grains; the next half a pound, less forty grains. the third forty grains. The bladder is thickened and its mucous coat is ulcerated. There had been indications of stone for twenty-five years, and the patient was sounded at the time by two provincial surgeons. Shortly before his death he was again souuded by a London surgeon, who wished to operate; but the patient would not consent, and soon died. The sufferings of the patient were most severe, amounting often to torture, for which he was in the habit of taking a mixture of gin and beer. His death was preceded by a dry tongue, pain in the region of the right kidney. twitchings, tympanites, and drowsiness, which passed into coma, The urine during this period contained large quantities of blood and pus. The stones are smooth and of phosphatic composition. The surgeon who wished to operate is probably to be congratu lated on the resistance of the patient. The specimen will shortly be given to the Royal College of Surgeons.—*The Lancet.*

Treatment of Diphtheria.—M. Kien, in the late epidemic of at Strasburg, has found that Schaller's method of treating diphtheria wish perchloride of iron—twenty drops in twenty drops of water, in a teaspoonful or two of coffee every two hours—was exceedingly effective. In some cases, in which the medicine did not act sufficiently rapidly, M. Kien has given in addition syrup of eucalyptus, according to the plan of M. Goldschmidt. If the patients refused to take the perchloride of iron, a lotion was employed, such as was proposed by M. Mandl, of Paris, for application in chronic granular pharyngitis. The lotion was applied by means of a brush, as a wash for the sore places, two or three times a day. It was composed of carbolic acid, 0·10; pure iodine, potassium iodide, oa: 0.20; glycerine, 10·00. Independently of this, he gives salicylate of soda, 1-100, if symdtoms of fever present themselves; the drug acts in in the same way as sulphate of quinine, whilst it is more easy to administer in a liquid form.—*Gazette Medicale de Strasbourg*, Nov. 1876.—*The Practitioner.*

Pilocarpin in Children's Diseases.—Professor Demme of Berne has recently given an extended trial to pilocarpin in various dropsical affections of children. The cases treated were thirty-three in number, and the remedy was administered subcutaneously. Eighteen were cases of desquamative nephritis with dropsy after scarlet fever; in three the same affections after diphtheria. In the remaining twelve cases the dropsy was due to the vulvular affections of the heart, rheumatism, acute, long affections, &c. The age of the patients ranged from nine months to twelve years; the dose varied from five milligrammes to two centigrammes. In some of the cases from two to four injections of a centigramme each were made in the twenty-four hours. Only in two cases were there any unpleasant symptoms, such as vomiting, hiccough, paleness of face, prostration, convulsions. In these cases the peculiar effects of the remedy were not observed. Professor Demme regards pilocarpin as an excellent diaphoretic and sialagogue. The former effect is more marked in older children, the latter in younger patients. Three to seven minutes usually suffice for the effect

of the drug to be produced; this goes on increasing for fifteen minutes, and remains at its height for a half an hour or more, and then gradually subsides. There is slight diminution of temperature. The pulse is increased in volume and in frequency by from twenty to sixty beats. As a result of the full effect of the pilocarpin there is a loss of weight varying from 120 to 675 grammes. Diuresis is only occasionally observed. There was watery diarrhœa in two cases. Professor Demme thus summarizes his experience of the remedy: 1. Pilocarpin is an efficacious diaphoretic and sialogogue in the treatment of certain diseases of children. 2. In appropriate doses it is well borne by the youngest patients. 3. Unpleasant symptoms are of very rare occurrence, and can probably be altogether prevented by administering small doses of brandy before the injection. 4. The cases for which pilocarpin is especially suitable are the parenchymatous inflammations of the kidney with dropsy following scarlatina and diphtheria; in the majority of these cases the flow of urine is decidedly increased, while the quantity of blood and albumen in the urine is diminished rather than augmented. 5. It is uncertain whether pilocarpin has any direct influence upon the action of the heart.—(*Medical Examiner*, July 18, 1878.)—*The Practitioner.*

Large Doses of Belladonna in Intestinal Obstruction.—Dr. Norman Kerr puts on record five cases of intestinal obstruction which he has successfully treated by the administration of belladonna in two grain doses every hour. The total amount of belladonna given ranged from five grains the lowest, through nine and fourteen grains, the highest. The accessory treatment consisted in fomentations, warm enemata, gruel and beef-tea per rectum; ice, iced-milk and soda water by the mouth. Attacks of obstruction occurring afterwards were also treated successfully by the administration of belladonna. In no case was alcohol prescribed, but in one it was taken as two ounces of port wine before the belladonna treatment was begun. In the after treatment pulvis glycyrrhizæ composita has been found the most effectual remedy, as a preventative of obstruction.—*British Medical Record.*

Hypodermic Injection of Dialyzed Iron in Chlorosis.—Professor Da Costa reports vast improvement in the condition of a young woman, aged twenty-one, suffering from chlorosis after the injection of dialyzed iron hypodermically for a fortnight. Hitherto iron has not been used in subcutaneous injections, as it is liable to cause irritation and abscesses, even with the tartrate, which is one of the mildest forms. The solution of dialysed iron was found to be from these drawbacks, even used undiluted. The punctures caused by the syringe show no sign of inflammatory action. In no case was there that costiveness or disordered digestion which are but too often the after-effects of the use of iron. Daily injections of fifteen minims of pure dialysed iron were at first given, and this was gradually increased to twenty, twenty-five, and thirty minims per day. Under this treatment the colour gradually came back to the patient's lips, gums and tongue; her appetite was good her bowels regular, and her headache gone. She was considered practically cured.—(*Philadelphia Medical Times.*) *The Practitioner.*

Of the Nature of Mumps.—M. Fehr, after observing several cases of mumps with the greatest exactness, decides that it is right to consider the disease as infectious, and that, as was already noticed by previous observers, it stands in a definite relation to acute exanthema, particularly to scarlet fever. The occasional swelling occurs in the neighbourhood of the glands themselves, whilst the surrounding tissues only become infiltrated at a later period. It is, to say the least of it, inaccurate to describe the disease as periparititis, as is usually done; that it is not parotitis is shown by the fact that in very many cases of mumps it is the sub-maxillary which is either affected alone or is swollen at first. The infection is not due to propagation of inflamation of the mouth caused by secretions from the glands. The observation that in most epidemics of mumps there is a period of incubation lasting several days with the well-known febrile symptoms before the appearance of the local symptoms. as well as the spread of disease not only to sur-

rounding persons, but also to the fœtusargue for a specific, alteration in the blood. The swelling of mumps is not a catarrhal inflammation, but a morbid swelling ot the glands depending upon varying hyperæta, which only occasions collateral hypeæmia and infiltration of the neighbouring tissues,when there happens to be a stoppage of blood in the glands.—*Von Langenbeck's Archiv.*, xx. p. 600. *Rundschau*, June 1878.—*The Practitioner.*

Chloral Medicated with Camphor.—(The Tropical application of Chloral Medicated with Camphor.) The mixture of chloral and camphor is transformed by heat into a thick oily transparent liquid, resulting from the solution of the camphor in the cloral hydrate, which thus loses its proportion of water. This topical application does not act like chloral by revulsion, for it does not produce the slightest hyperæmia of the skin. Its action appears therefore to be due to its absorption. Dr. Sune who has made out these facts, has seen several cases of pain in the side and slight attacks of neuralgia cured by this new medicine. (*Independencia Medica.—Practitioner.*)

Iodide of Potassium in Small Doses in Persistent Vomiting.—Dr. Formica Corsi states that iodide of potassium given in small doses cures obstinate vomiting which has resisted the ordinary treatment. In a case of a pregnant woman suffering from typhoid fever, Dr. Corsi administered two centigrammes of iodide of potassium dissolved in 100 grammes of water in a teaspoon every hour and a half. The vomiting, which had previously resisted all known antiemetic, ceased the following day. Dr. Giné confirms the antiemetic properties of iodide of potassium; and he uses the medicine in doses of one to five centigrammes daily for the cure of constipation, as he finds that it acts as a laxative. (*Independencia Medica.*)—*The Practitioner.*

CANADA

Medical and Surgical Journal.

MONTREAL, DECEMBER, 1878.

COLONIAL DEGREES.

In the October number of this periodical we published an article on the question of the recognition of Colonial Degrees, and in doing so our desire was to endeavour to enlighten our English Brethren as to the nature and character of our institutions. It appears that the tone of this article has given umbrage to the Editor of *The Medical Times and Gazette*. It is lamentable to see the absurd notions that are apparently entertained and expressed occasionally in the British Medical press concerning us Canadians, and the article in our journal above referred to, was one of a series that have from time to time appeared in our periodical, for the the express purpose of imparting some information to our fellow-countrymen on the other side of the Atlantic as to our social and medico-political status. But the article in question had a wider signification as it applied in a degree to our own local enactments. We are desirous of seeing that proper understanding, which should exist amongst us Canadians, but which, unhappily, does not exist, of harmonizing all our licensing bodies under one head, so that a man who is registered in one section of the Dominion can claim, on the strength of that qualification, registration in any other section. Far be it from us to hold out any threat, as is hinted in *The Medical Times and Gazette;* such a line of conduct would not be likely to attain the end desired. Perhaps our contemporary is not aware that Canada is a country sparsely populated, but containing an area of about as large as the whole

of Europe. That this country has a future and a bright one before it, few who are accustomed to reason on these subjects will deny. The Canadian faculty are in no way anxious that Jack's master should believe Jack to be as good a man as himself. They are perfectly willing that *the master* should remain in his self-imposed exclusiveness, be self-satisfied and convinced that he is far above other men, especially his man Jack. Still, Jack can go on in the old way, and if his master becomes too exacting he can simply cease to serve him or to recognise him in any way as his superior or even his equal. The world is all before us, and the Canadian Medical Faculty has yet to learn that recognition in any shape is essential to its being. If the tone of our article was "not altogether satisfactory," how can we characterize the tone of the reply in the leader of *The Medical Times and Gazette* of the 16th November, 1878.

The article in the CANADA MEDICAL AND SURGICAL JOURNAL was based on an editorial item which appeared in *The London Lancet* of the 26th of October, in reply to a letter of complaint from a British graduate, who, we must confess, was treated with apparent injustice,—an injustice which, by-the-way, was rectified by order of the President of the College of Physicians and Surgeons of Ontario, as soon as the circumstances became known to that official. We are not so sure that the editor of *The Lancet* is correct in his opinion that persons registered under the imperial law are entitled to be registered in the Colonies, on payment of the necessary fee, at least, so far as Canada is concerned. According to the British North American Imperial Act, the various Provinces of this Dominion are granted the power to legislate for themselves. There is no saving clause protecting the rights of registered British Medical Practitioners. We have always held, and we do so still, that British practitioners should be entitled to registration on what their papers show. In Canada we are general practitioners, and a man to register with us must hold the double qualification. A pure surgeon would have to satisfy the board of examiners, by examination on the subjects in which his papers are deficient of his fitness to enter the profession as a general practitioner. So, again, a

pure physician would have to satisfy the board by examination that he was proficient in surgery before he could obtain his license to practice. Our friends on the other side do not seem to be aware of this fact.

It would seem that the *master* insists on recognition from his man *Jack*, not on account of what he is in verity, but because of what he would desire to be.

The Medical Times and Gazette assumes that the grievance of non-recognition is, to a very great extent, a sensational one. In this we do not altogether agree. Was it a sensational grievance when the agents in England of the Canadian line of Steamships received a notice from the Board of Trade in London, that after the 1st January, 1877, the steamers of that line would not be allowed to clear at the Custom House in Great Britain unless the Surgeon on board was provided with a Diploma from some of the colleges in England, Ireland or Scotland. This action of the Board of Trade was resisted by the Messrs. Allan.

Sir Hugh Allan, the head of that firm, who resides in Montreal, in a letter which he addressed to Dr. G. W. Campbell, the Dean of the Medical Faculty of McGill University, and which we published at the time, remarks, under date, January 19, 1877 :—

"I am totally ignorant of the reason why this regulation is proposed, or of any good to be attained by it.

"We have for the last twenty years carried Canadian Surgeons on board our steamers, as well as English ones, and the result of our experience is, that the Canadian Surgeons are quite equal both in professional acquirements, and gentlemanly bearing, to those we receive from the Colleges in England.

"I therefore am not disposed to submit to this requirement, inasmuch as I think it is a great injustice to the institutions of this country, as well as to the young men who study therein, and in point of fact it is a slight upon the Dominion itself.

"I have written to the Government urging them to take action in this matter without delay, and I write this letter to you with the view that you should bring it before the authorities of the University of McGill College, or in any other way that you think most likely to attain the object I have in view, and that is a full and perfect recognition of our own medical men as being equal to any others."

We have reason to know that correspondence on this subject passed between the governments of the two countries and the action of the Board of Trade was for the time rescinded, but the Canadian surgeons are not in a legal position. Their qualifications are not recognised as giving them any status, further than that if a man is registered in his own colony under the local enactments of his own country he is permitted to serve on British ships. This is a state of things which is unsatisfactory, more especially as the profession of Great Britain is seeking for further legislation as regards this very subject of registration. The last clause of the article in the *Medical Times and Gazette* can apply equally in our favor as in theirs, for how are we to know that the standard of their ordinary pass-examination is equivalent to our own. We take it for granted that it is and we admit men hailing from their schools to registration without examination, but we do so in a spirit of broad liberality and with a full hope that an equally liberal spirit will guide the councils of those in authority in Great Britain; not, however, be it distinctly understood, because we are compelled to do so. We possess our own legislating bodies in this country who can, if it seems advisable, exclude every person from participating in our Registration Act unless the person so applying comes with a curriculum of study equivalent to our own and passes an examination before our local boards.

Dr. Clark, senior physician to the London Hospital, who accompanied H. R. H. Princess Louise, and his Excellency the Marquis of Lorne on their coming to this country, was entertained by the profession of this city at dinner at the Windsor Hotel. Some thirty gentlemen sat down. The Dean of the Medical Faculty, McGill University, took the chair, having on his right the guest of the evening.

Dr. J. P. Rottot, President of the College of Physicians and Surgeons, Province of Quebec, occupied the vice chair. A most enjoyable evening was passed. The usual loyal and other toasts were given and heartily responded to.

CANADA
MEDICAL & SURGICAL JOURNAL
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Original Communications.

A CLINICAL LECTURE

UPON A CASE OF

CONTRACTION OF THE RIGHT SIDE OF THE CHEST,

AND GREAT ENLARGEMENT OF THE SUPERIOR HALF OF THE ABDOMEN—GIVEN DURING THE SUMMER SESSION OF 1878.

By R. P. Howard, M.D., etc.,

Professor of the Theory and Practice of Medicine, McGill University.

Reported by Dr. Vineberg.*

Gentlemen,—Owing to the obliging disposition of the young man who accompanies me to-day, and who came from a distance for my opinion, I am enabled to show you a case of unusual interest. Its nature has been the subject of some diversity of opinion amongst the many physicians who have examined the patient; and though it is probably an example of a not uncommon pathological combination of lesions, it must be admitted that considerable obscurity and difficulty now surround it, as seen for the first time more than two years since its invasion.

It will be necessary to give you as fully as possible the history of the case as related by the patient, who is a young man of much intelligence, and he will then be examined before you.

* A few additions have been made to this lecture since it was delivered. —R. P. H.

W. McD., 19 years of age, printer, gives the following history from memory:

Had always enjoyed good health up to January, 1876. He then first experienced shortness of breath when walking, but had not any cough, and although looking ill, thought nothing of it. In the following May he had a slight cough, from taking cold, this continued about three weeks, but under the use of squills, prescribed by a physician, disappeared entirely. When he first consulted his medical adviser, great enlargement of the epigastric and hypochondriac regions was noticed, but its nature was not made out and seven weeks treatment did not remove it. During the succeeding thirteen weeks the swelling remained stationary. The patient, who was not under treatment, continued at his employment, and on November 1st, the cough having returned, he sought advice from the brother of his former attendant, who considered that he had tubercular disease of the right lung, but made light of the enlargement of the body above mentioned. He never had suffered pain in his side, nor, as far as he remembers, did he experience any until the winter set in; but during that season he, on two or three occasions, experienced attacks of severe pain in *left* mammary and hypochondriac regions, which lasted eight or nine hours, and was deep-seated and of a stitch-like character. The cough lasted all through the winter, and was of varying intensity; it frequently continued all night. He thinks the expectoration was chiefly of a frothy mucus, except during four weeks, when it was dark-green and purulent, and was always free from blood.

The treatment during that period embraced, amongst other things, blue mass, iodide potassium, frequent blisters, and local applications of iodine, and mercurial ointment. In May, 1877, œdema appeared in the lower extremities, the eyelids were puffy in the morning, and his urine contained some albumen; but the dropsy disappeared in August. He visited Boston in July of that year, and saw some of the most eminent of the physicians there: one of whom aspirated the right side of the chest posteriorly, but obtained no fluid. No opinion was given him respecting the nature of his case, but he was ordered

to avoid medicine and work, and to live nutritiously. He made a second visit to that city in October, when, on comparing his person with a sketch taken at his previous visit, no change could be perceived. He then weighed 142 lbs. Since July, 1877, he has been free from cough, except for a couple of days together, and only after exposure; his breathing has improved, and œdema of feet and legs has continued stationary. Since the œdema first set in he has had to urinate eight to ten times during the day, and once during the night. His immediate family history is as follows: Both parents, four brothers, and four sisters, are alive, and with the exception of two of the latter, are all healthy. One sister has been the subject of some lung affection, and another is epileptic.

June 11th, 1878.—*Present Condition.*—Stature, 5 feet 9½ inches; weight, 150 lbs; fair complexion; pale; not badly nourished. Taking off his shirt, we note the following:—

Inspection and Measurement.—Notable deformity of thorax; left half larger and fuller than right, which is flattened and retracted; the right shoulder and nipple on lower level than the left; posterior border of right scapula projects, and dorsal spine presents a lateral curve, with the concavity to the right; semi-circular measurement a few inches below nipple—right side, 15⅞″; left, 17⅛″; at nipples, right, 15 6-8″; left, 17″; axilla, right, 15 6-8″; left, 16 1-8″. Expansion of the entire right half of chest very deficient; that of left very marked.

Percussion elicits hyper-resonance over entire left chest—anteriorly, this note extends to right of mesian line as far as border of sternum; inferiorly, it coasts obliquely along close below left nipple, into lateral region, at level of 7th space; posteriorly, the left infra scap-region, over about 2½ inches vertically, emits a flat note. In the right infra clavicular and axillary regions resonance is of dull, hollow, almost amphoric quality, but below the level of, and corresponding accurately with, a horizontal line drawn around the chest from the 3rd intercostal space, the stroke sound is flat, and the resistance great over the rest of the entire right chest.

Auscultation.—Exaggerated respiration over left chest, with

comparatively feeble vocal resonance and fremitus. Blowing respiration, increased vocal resonance (pectoriloquy) and fremitus exist over whole right half of thorax, are most marked above the level of third interspace; all respiration ceases to be audible below 9th rib posteriorly; a fine, sharp bubbling is heard at end of inspiration in 4th right interspace from sternum into axilla and shade off superiorly. Heart's impulse and sounds more perceptible in lower sternal region, and at right border of that region, than at usual site inside of left nipple.

Extending the examination to the abdomen, we are struck with the great enlargement of the upper zone, the epigastrium and both hypochondria being occupied by a firm, smooth, resisting body, which gives a dull note on percussion, as though the entire liver were very much enlarged. The fullness is most prominent in the epigastrium, especially over its left half. The dull percussion note over this enlargement extends not only over the whole upper abdominal zone, but blends superiorly with that present in the right mammary, in the cardiac and lower part of the left mammary regions, and encroaches inferiorly upon the middle abdominal zone. The hollow percussion resonance of the stomach is masked by the flat note of the resisting mass which seems to be in front of it. A horizontal depression exists around the abdomen, corresponding to the lower margin of the dull and prominent region, and divides the belly into two portions. The lower portion is smooth, its walls tense, and in the erect posture fluctuation is perceptible as high nearly as the umbilicus. In the recumbent posture on the left side, sudden palpation appears to displace fluid and permit the enlarged liver to be felt by the fingers. Owing to the tenseness of the parietes, the lower edge of the liver cannot be distinguished. Superficial epigastric and mammary veins very numerous and tolerably enlarged; lower extremities, up to buttocks, pit upon pressure; no œdema of scrotum; slight puffiness of eyelids. To the above physical examination, which yon have just witnessed, may be added the following facts:—Patient micturates eight or nine times in the day, and, if awake, once or twice during the night. The urine is normal in colour, free

from albumen, tube casts and renal cells. About four pints passed daily. His breathing is short, especially when exerting himself, but he is free from cough and expectoration. His blood of rich red color; red corpuscles collect into rolls, are abundant, of uniform and fully average size; while they are tolerably numerous, but not excessively so; small granules present in moderate amount.

In forming an opinion as to the nature of this case, we will begin with the chest, the right side of which is so much retracted and smaller than the left.—What are the conditions known to produce marked retraction of one side of the thorax with dull percussion resonance?

1. Infiltrating carcinoma of the lung; 2. General collapse of one lung, both rare affections; 3. Chronic pleurisy, with retraction; 4. Chronic phthisis, both common affections, and 5. Cirrhosis of one lung, a comparatively rare affection.

Let us endeavor to determine which of these conditions obtains in this young man.

1. Carcinoma of a lung, especially when diffused, may produce retraction of the side of the chest. But the circumstance that the patient has suffered from his disease for over two years, and that, instead of losing flesh and becoming weak and cachectic, he is gaining weight and strength, is quite incompatible with the existence of infiltrating carcinoma of nearly an entire lung; a disease which is uniformly progressive and usually fatal in from two to two and a-half years. And there are several other facts opposed to such a view.

No mediastinal tumour, so frequently present in pulmonary carcinoma, exists, for the dull percussion note does not extend beyond the middle line—rather it falls short of it—nor are the veins on the front of the chest and shoulder, and at the root of the neck, enlarged and varicose; there is no contraction of one pupil, no alteration of the voice, no œdema of the neck and of the affected side of the chest; in short, the pressure signs of intra-thoracic tumour are wanting.

Hæmoptysis and red or black currant jelly-like expectoration have not occurred. There is no enlargement of any of the

external lymphatic glands. And, although there is enlargement of the liver, I will assign reasons by-and-by against the malignant nature of that enlargement. Pulmonary carcinoma then may certainly be excluded.

2. *General Collapse of the Lung* may be excluded, for there is no evidence of aneurismal or other tumour in the chest to compress the main bronchus which admits air to the lung. The physical signs are not those of mere collapse—viz., feeble respiratory murmur, without decided blowing or hollow quality, mere diminished percussion resonance, or slight dulness; absence of markedly increased vocal resonance and vibration. On the contrary, the percussion note is somewhat hollow superiorly, and almost wooden with marked resistance inferiorly; respiration is quite blowing, and vocal resonance and vibration are much intensified.

3. *Chronic Pulmonary Consumption*, using the term in Laennec's sense, sometimes develops a form of fibroid transformation of the lungs, attended with contraction of one side of the chest; indeed, this is the most frequent origin of at least one form of pulmonary cirrhosis. But not wishing to assume that this form is identical with that which succeeds simple inflammation of the bronchi, lungs, or pleura, I will speak of it by itself. Consumption is but rarely attended with great retraction of one side of the chest, and very seldom with the degree of general retraction and deformity present in this case. Signs of softening or excavation will usually be present in the apex of the affected lung, and disease will almost always be found co-existing in the apex of the other lung when retraction obtains. The history will generally record hæmoptysis, recurring diarrhœa, colliquative sweating, unremitting purulent expectoration and steadily progressing loss of strength and flesh. Such are not the clinical features and history of our patient, and chronic phthisis may therefore be ignored.

There remain, then, but chronic pleurisy with retraction and cirrhosis, or fibroid degeneration of the lung, and it is difficult to decide between them.

Fibroid Degeneration, or *Cirrhosis* of the lung, resembles in many respects this case.

That disease affects one lung usually, and the other remains healthy and enlarges; pain in the affected side and hæmoptysis, night sweating amd diarrhœa may be wanting, and often are; cough may also be absent at first, especially if it originates in pleurisy, which it is admitted does occur sometimes, and no doubt our patient had pleurisy. This loss of flesh and strength is often not at all in proportion to the cough, the extent and character of the physical signs, and the duration of the disease. The previous health may have been quite good up to the time of the attack, and the general nutrition, the well-developed frame and muscles may indicate a healthy and vigorous constitution.

The retraction of the side, when the whole or the greater portion of one lung is implicated, may be as great as in chronic pleurisy, and affect the entire side, although there is not usually (only exceptionally) such marked depression of the shoulder, tilting out of the inferior angle of the scapula and lateral curvature of the spine, as is seen in this case.

The physical signs indicate consolidation of the lung, and are the same as those present in this young man—decided dulness of hollow quality, with marked resistance anteriorly and posteriorly; respiration of blowing quality, pretty generally audible over the whole dull region, although, as in chronic pleurisy also, the respiration may, as in this case, be feeble and almost inaudible at the base of the lung, where a thick deposit of exudation matter separates the pulmonary from the costal pleura; and vocal resonance and fremitus are exaggerated all over the dull region except at the extreme base, as they usually are in cirrhosis. When they are not, it is probably because even the bronchial tubes are obliterated in the indurated and atrophied portion of the lung; a condition which will also explain the feebleness of respiration noticed in the patient in the infra-scapular region, which, though very dull on percussion, is almost silent as regards respiratory sound.

Now, while this case comports in all these respects with advanced cirrhosis, the following circumstances may be urged against that view:—

There is no history of previous pneumonia, recurring attacks of bronchitis, chronic tubercular disease, or exposure to the inhalation of irritating particles, which are the well-established antecedents of fibroid degeneration of the lungs. Even if it had been satisfactorily proved that that affection does occasionally owe its origin to the abuse of alcohol, to gout, rheumatism, or syphilis, none of these have obtained in the history of this patient.

Fibrinous Pleurisy is also regarded as a determining cause of pulmonary cirrhosis, and it is my opinion that our patient's illness began as pleurisy, but of that form which is accompanied with effusion, of which more hereafter.

5. Another explanation only remains—*Pleurisy*, followed by retraction of the side, a condition that sometimes resembles, in its symptoms and signs, fibroid degeneration or cirrhosis more than any other disease does.

Marked retraction of the chest, after pleurisy, occurs most frequently when the pus or sero-purulent effusion has opened into the bronchial tubes and been expectorated, or has perforated the chest wall and thus escaped. Sometimes, however, it follows absorption of the fluid, but the retraction is then not usually great.

Now, there are some serious objections to the view that this case is one of pleurisy followed by retraction; thus:—

There is no history of pain in the right side, fever, cough, or illness beyond dyspnœa, for the first four or five months. Taking that view, we are obliged to suppose that the first physician whom he consulted (for chronic dyspnœa and a recent cough), and who discovered the great enlargement across the epigastric zone, failed to notice the existence of pleurisy, probably with more or less effusion, although he had him under treatment for seven weeks, and under observation, in conjunction with his brother, who was also a physician, for a year afterwards.

The dyspnœa and great enlargement in the epigastric zone continued all summer, and then cough set in again, but attended with expectoration, and still no mention was made of pleurisy or pleural effusion, but of phthisis.

These are certainly objections to the theory of pleurisy with effusion, but, on the other hand, it may be urged. 1st. That that disease is sometimes quite latent, pain being altogether absent, the disease revealing itself subjectively chiefly by dyspnœa during exertion, and objectively by its physical signs. 2nd. That the pleural disease may not have set in till the fall; the dyspnœa may have been caused by the large tumour below the diaphragm interfering with the action of that great respiratory muscle. 3rd. That the doctors may not have chosen to inform the patient of the pleurisy; or, attaching chief importance to the tumour, they may have actually overlooked the presence of effusion in the right side of the chest.

But *what* are the circumstances favourable to the view that the thoracic affection was primarily pleurisy followed by retraction?

1. That it is by far the most frequent cause of general retraction of one side of the chest? On Friday last I saw an excellent example of it with Dr. Roddick, in a patient from whose right chest he had removed 80 or 90 ounces of serum four years ago. The retraction affected the whole right side superiorly as well as inferiorly, posteriorly as well as anteriorly. The appearance of the entire chest resembled very closely that of this young man.

2. The existence of dyspnœa from the beginning of the year till May, without cough, is reasonably and fairly explicable on the supposition of latent pleurisy with effusion.

3. The enlargement in the hepatic region noticed in May, may have been due to the displacement of that organ by the effusion (although it is quite possible amyloid degeneration of the liver may have also been present.)

4. The severe cough which often continued throughout the night, and lasted six months, may well have been due to the effusion having perforated the lung, and been expectorated from time to time.

5. The *degree* of the retraction being so considerable, and being attended with depression of the shoulder, lowering of the nipple and curvature of the spine.—Walshe, indeed, says, "That

none of these displacements are produced by cirrhosis alone:" and although this statement does not always hold good, (see case by Bastian, in Reynolds' Syst. Med., vol iii., p. 857), yet it expresses a good general rule.

6. While the physical signs present may be equally well referred to "pleurisy with retraction," or to "cirrhosis," the absence of those characterizing dilated bronchi in the affected lung, favour very decidedly, the existence of the former affection.

7. The absence in the history of the case of hæmoptysis, of a peculiar purulent expectoration, and of diarrhœa, favours the view of pleuritic rather than cirrhotic origin.

8. So does the cessation of the cough and expectoration, and the steady improvement in flesh, strength and general health for the past 10 months. Cirrhosis, in the vast proportion of cases, progresses from bad to worse—although it does so very slowly. The cough and expectoration hardly ever cease for a long time, for months I mean.

9. Finally, there is one physical sign present, which is almost a proof of the previous existence of pleurisy with effusion, viz.: the horizontal line which the upper limit of dulness makes around the chest, from the sternum to the spine at the level of 3rd intercostal space.

Neither tubercular nor malignant disease; neither cirrhosis, chronic pneumonia, nor tumour of any kind, could produce a horizontal line of dulness, unless in very exceptional cases.

For these considerations, then, I am of the opinion that the affection in this patient's chest has been pleurisy with effusion, followed by general retraction of the right half of the thorax.

But a greater difficulty awaits us: What is the enlargement of the epigastric zone due to? The situation of the enlargement-viz.: in the epigastrium, both hypochondria, more especially the right, and the upper part of the umbilical zone—its percussion dulness, blending above with that of the liver, spleen and heart, and extending continuously into the umbilical region below,—its uniform, resisting, solid feel—its superficialness, covering as it does the stomach, are circumstances that induce me to regard it as an enlarged liver.

The conditions, productive of such great hepatic enlargement, are chronic mechanical congestion, abscess, cancer, fatty degeneration, both forms of hypertrophic cirrhosis, hydatids, and amyloid degeneration.

Mechanical Congestion of the *liver*, from mitral or tricuspid disease sometimes produces uniform and considerable enlargement of the liver, but never, in my experience to the extent present in this young man, in whom, moreover, no valvular affection exists.

Pyæmic Abscess of the liver, consequent upon pleurisy might produce enlargement of the liver, but the entire absence of pain, and tenderness, which are always, and of jaundice, which is usually present in hepatic abscess; the absence of the general symptoms of pyæmia, viz.: irregularly recurring fever of intermittent type, rigors, profuse sweating, subcutaneous and articular suppuration, etc., and the short duration of pyæmic abscess which rarely outlasts three months, and generally ends fatally, will exclude that affection. I deem it unnecessary to discuss *primary* abscess of the liver, the result of hepatitis, a disease not infrequent in the tropics, but hardly known here.

Fatty Enlargement of the liver, so common in chronic phthisis, is rare in other wasting diseases, and in young and temperate persons. It is not attended with ascitis, and may be ignored in this instance. Moreover the enlargement appears to have existed before the protracted cough and expectoration set in.

Carcinoma of the liver, which might well explain the great size of the abdominal tumour, may be excluded, owing to the absence of the following symptoms: pain in and tenderness under pressure, of the liver; tumour elsewhere; enlarged glands, and that profound alteration of health and nutrition necessarily consequent upon the existence of a malignant tumour for two years. Carcinoma steadily pursues the evil tenor of its way towards cachexia, marasmus and death, and the last is not far off at the end of two years.

That form of Hypertrophic *Cirrhosis*, caused through obstruction of the bile duct by gall stones, cancerous glands, or pancreas, &c., and sometimes by malaria, and called *Biliary* cirrhosis may

be excluded, for the early and marked icterus of that affection has not existed in this patient. The presence of ascites in this case would also be opposed tothe idea of *Biliary* cirrhosis, according to Hanot, but other observers have met with that symptom at least in the advanced stages. This young man has not resided in a malarial region, nor had ague.

Simple Hypertrophic Cirrhosis, if I may so term it, to distinguish it from biliary cirrhosis, although not generally described in systematic works, is an affection of which I have seen several specimens.

It is not *always* due to *obstruction* of the *bile* ducts, nor is jaundice a necessary symptom. It may present all the clinical features of the ordinary atrophic form of cirrhosis, except that the *liver* is *enlarged*, sometimes very greatly, instead of being reduced in volume. In an interesting example which occurred in this Hospital, and is discussed in Dr. Osler's Pathological Report for 1876-77, p. 571, the liver was uniformly enlarged, and weighed 6lbs 11½ oz. In some respects our patient's case conforms to cirrhosis with hypertrophy, viz.: in the uniform enlargement of the liver; in the existence of ascites and of moderate enlargement; and visible anastomoses between the epigastric and mammary veins and the last two are amongst the most reliable evidences of cirrhosis.

But the *absence of several* other features incline me to exclude that affection. Thus, the patient has not used either *strong alcoholic liquors or ale;* he is young; he has not had *hæmorhage from stomach, bowels or elsewhere*; nor a sub-icteroid colour of skin.

Finally, a more *probable* cause of enlargement of the liver exists to explain the case.

Two other causes of the hepatic enlargement remain, neither of which can be certainly excluded, but I will take up the least *probable* first.

Hydatids of the *liver*, produce a *slow* but very considerable enlargement of the liver, unattended by *pain* or fever, or, in many cases, by *jaundice* or ascites, or enlarged superficial abdominal veins.

The enlargement, however, as a very general rule, does not involve the *entire* liver, but one or other part of it, producing, in this way a tumour not having the natural outline of the liver, and possessing an elastic or even distinctly fluctuating feel, and perhaps presenting one or more projections upon its surface.

The case, perhaps, corresponds in many respects with these characters; but the hydatid disease is so rare in this country that I have never met with an example of it, and believe that the probabilities are in favour of another affection, now to be considered:

Amyloid degeneration of the liver resembles in many particulrs this young man's case. It produces a *slow* and often painless and *uniform* enlargement of the *entire* organ, usually without jaundice or fever. Enlargement of the superficial abdominal veins, and ascites may occur, although they are not at all constant; moderate ascites and œdema of the lower limbs are frequent. The spleen is also frequently enlarged as well as the liver, and it is so in this case, I believe; although it is difficult to make out its limits accurately. The kidneys, too, are apt to undergo amyloid degeneration, and albuminuria results.

Our patient's history corresponds very closely with this description, although albumen was not present in the single sample of his urine examined by me; but he says it was found when his dropsy first appeared.

There is one important difficulty, however, in accepting amyloid disease as an explanation of this case; viz.: the fact that the enlargement of the liver was noticed six months before the winter cough and expectoration set in—the only symptom in addition to the enlargement observed by the patient being gradually increasing dyspnœa.

The usual *cause* of amyloid disease is chronic suppuration from disease of bone, tuberculous affections of the lungs and other organs, constitutional syphilis and the like, none of which can be said to have preceded the enlargement of the liver in our patient. The pleural sero-purulent, or purulent effusion, which I have inferred to have obtained at the beginning, however, may have occasioned, and would account for the amyloid degeneration.

But, inasmuch as it sometimes appears to originate in persons of a scrofulous diathesis, without suppuration, and sometimes cannot be traced to any cause whatever, the absence of a well-establised cause in this case does not, in my opinion, justify us saying that amyloid disease is not present.—It *best* meets all the requirements of the case.

You see, then, how many difficulties surround the formation of a reliable diagnosis in this instance. Yet, I venture to believe the most probable view is, that chronic pleurisy with retraction and amyloid degeneration of the liver, are the conditions present. I admit the possibility of some rare form of cystoma, or sarcoma, in the liver; or of a tumour or aneurism, or collection of pus between the diaphragm and the liver, but have not time to discuss these clinical curiosities, some of which are beyond the power of diagnosis.

Hospital Reports.

MEDICAL AND SURGICAL CASES OCCURRING IN THE PRACTICE OF THE MONTREAL GENERAL HOSPITAL.

Case of Gunshot Wound of the Brain.—Recovery.—Subsequent Death from Phthisis.—Autopsy.—Under the care of G. E. FENWICK, M. D. Reported by Mr. H. W. LLOYD.

C. G., aged 19, a sickly-looking lad, was admitted into the Montreal General Hospital on the 8th day of March, 1878, suffering from the effects of a small pistol wound situated a little above and in front of the right ear. This wound had been accidentally received the day before his admission to the hospital. The account he gives of the occurrence is as follows:—While sitting on the edge of his bed, and examining the barrel of a small-sized revolver, which he did not suspect to be loaded, an explosion took place, and the ball entered the skull through the upper segment of the right temporal fossa, piercing the muscle, bone and membranes, and passing into the substance of the brain. The barrel of the revolver was not more than a few inches from his head, and he believed it to be almost at

a right angle to it. The receipt of the wound was followed by a sharp pain at or about the point of entrance, accompanied by a ringing noise in the ears, slight dizziness, or a feeling as if he was floating in the air. Shortly after receiving the wound, vomiting set in, and continued at intervals for the ensuing 36 hours. During the straining while vomiting, a little blood would ooze from the wound. There was no bleeding in quantity from it at any time, but there trickled away an abundance of bloody serosity, in all likelihood from the arachnoid cavity. He was perfectly sensible, and continued so throughout, during his stay in the hospital. There was no sign of paralysis. The pupils were dilated, but equally so, and respond to a strong light. No pain complained of, except in the vicinity of the wound, which was lightly puffy and red. The wound itself was half an inch in diameter. The bullet was lodged in the substance of brain, possibly in the anterior lobe of the cerebrum, as the point of entrance was on a line with, but above, the junction of the anterior and middle fossæ, close to the situation of the fissure of Sylvius, one inch and a half above the external auditory foramen, and one inch and a quarter in front. Has not slept since the accident; is silent, perfectly quiet; has dozed, but sleep is uneasy and short; awaking with a sudden start, he fancies he hears an explosion, which arouses him. The second day after his admission he complained of frontal pain, not however severe, his pulse was 60 per minute. There was no rise in temperature; pupils were still dilated, but equal in size, and responded to light, contracting, however, rather slowly. There is no vomiting nor tendency thereto, and he takes nourishment, which, however, was restricted to milk. An ice cap was ordered to the head, a pledget of lint wet with water, and covered with oil silk, to be applied over the wound, and the following mixture was given.—

℞ Potassii Bromd. . . . ℥ij,
Ext. Ergotæ, Fluid. . ℥ss,
Aquæ, add ℥. . . . . ℥vi.

Sg.—A tablespoonful to be taken every four hours.

From this time he progressed favourably, so far as the head symptoms were concerned, the brain disturbance gradually subsided, and the wound healed. His temperature never was high; on two occasions only, at night, the thermometer registered 101, but it was usually a little above the normal standard. Pain in the head was persistent, confined to the right side, and there was troublesome constipation, which required the occasional use of salines. On the 30th March, the report states that the pain in his head is less severe, he takes food well, and a more generous diet was allowed, but he seems listless, disinclined to leave his bed; he is weak, and has notably emaciated. His pulse is 96, and his temperature is normal in the morning, with a slight rise at night. The ice cap was discontinued, as was also his mixture; he complains of cough, and expectorates freely; has slight night sweats, but sleeps moderately well.

His chest was examined, and there was found consolidation at the apices of both lungs, with evidence of softening. On inquiry, it was ascertained that some four years ago he suffered from a severe attack of pleuro-pneumonia coming on after exposure to cold and a thorough wetting, having been upset from a boat while fishing, and at the time nearly drowned. During the attack his life was despaired of, as it was severe and persistent. There was no attempt at resolution. His physician recommended change of air, but he remained in the city Since that time he had suffered from several attacks of hæmoptysis, and the cough, with expectoration, has persisted throughout, with occasional night sweats, general symptoms of debility and steady emaciation. There is no history of phthisis in his family; his father and mother are still alive and enjoy good health, and all his immediate relatives are healthy. A tonic was prescribed, good diet and an expectorant mixture; and, with a view of giving him the chance of benefit of change of air, as the spring of the year had fully set in, he was advised to go to the country and live as much in the open air as possible, partaking of milk and eggs, with a moderate allowance of stimulants.

He left the Montreal General Hospital on the 27th April, and subsequently entered the Hotel Dieu Hospital, the disease

of the lungs progressed steadily, and he died on the 12th August, following.

As an illustration of the absence of all permanent brain disturbance, it may be mentioned that two days before his death he wrote a letter to his mother which was clear in diction, well composed and hopeful in character. He died apparently syncopal, as he had complained of feeling very weak, was more than usually languid, and passed away quietly and quite unexpectedly. Through the kindness of Dr. Angus C. Macdonell, physician to the Hotel Dieu Hospital, a *post-mortem* examination was secured, which adds additional interest to this unusual case.

Post-mortem examination made 24 hours after death:— Extensive disease of both lungs was found; the upper lobes were riddled with cavities of various sizes. There was no special examination made of the other viscera, as permission alone was granted to examine the brain. On reflecting the scalp, an oval-shaped opening through the cranial wall was observed. This opening was longer vertically than transversely. It was situated above the extremity of the great wing of the sphenoid, and involved the anterior edge of the squamous portion of the temporal bone, and also the anterior inferior angle of the parietal, it was almost closed by a firm, fibrous membrane. On opening the cranium, the inner surface of the dura mater, on the right side, was of a deep yellow color. This extended to the right surface of the falx cerebri, and also to the right half of the tentorium. The brain surface was likewise stained, but was not quite so deep in color. This was evidently due to effused blood, an extensive clot which had been absorbed. Near the point of entrance of the bullet through the dura mater were found several fragments of the inner table attached to that membrane. A large fragment of the inner table remained attached firmly to the posterior margin of the opening in the bone internally, being slightly tilted forwards, and had apparently changed the course of the projectile. The bullet entered the brain substance at the posterior margin of the right inferior frontal convolution, just in front of

the angle formed by the ascending and horizontal branches of the fissure of Sylvius. It passed upwards and forwards and out through the inner and anterior margin of the middle frontal convolution, resting between the brain substance and the falx cerebri. It lay surrounded by a firm membrane, and was one quarter of an inch in front of, and on a line with the anterior extremity of the corpus callosum. From the point of entrance through the *trajet* of the bullet, a firm membranous canal existed, around which, and for about three-quarters of an inch in extent, the substance of the brain was softened.

[We are indebted to Dr. James Bell, Assistant House Surgeon of the Montreal General Hospital, for the above carefully prepared record of the course and position of the bullet in this interesting case.—ED.]

Reviews and Notices of Books.

The Principle and Practice of Surgery, being a Treatise on Surgical Diseases and Injuries.—By D. HAYES AGNEW, M.D., LL.D., Professor of Surgery in the Medical Department of the University of Pennsylvania. Profusely illustrated. In two volumes. Vol. 1, royal 8vo, pp. x., 1062. Philadelphia: J. B. Lippincott & Co. London: 16 Southampton street, Covent Garden, 1878.

This volume forms the first part of Dr. Agnew's voluminous treatise on the Principles and Practice of Surgery. The author has expressed his views freely, based on his own experience and observation, which has not been limited, as he has had the advantage during the past quarter of a century of having under his charge surgical diseases and accidents in the hospitals of Philadelphia. Some of the enunciations here recorded are original in conception. They differ in some measure from the views and teaching of other surgical writers, still they bear the stamp or honest conviction based on careful observation. In wounds of the scalp, sutures are recommended. The author expresses a doubt concerning their injurious effect, and states

that "the popular notion that they tend to produce erysipelas, is without foundation." As a broad principle it may be regarded as very questionable advice, but admitting their usefulness, and occasional permissibility, the caution to avoid injury to the deep aponeurosis, in their introduction, ought to be mentioned. But in these pages, he not only gives his own views but those of other writers, so that the reader may have an opportunity of contrasting different methods of treatment in the management of their own cases, and of judging of their relative merits.

The volume begins with a chapter on Diagnosis, in which we learn the method of proceeding to arrive at a correct opinion of the nature of any given case. This forms an introduction to the rest of the work, which is divided into ten chapters. In the first chapter the subject of inflammation is freely discussed, the varieties of the inflammation such as what has been termed healthy and unhealthy. The former term might be considered contradictory, but it is very generally employed, and may be correctly regarded as indicating that condition, in which the morbid tendency to destruction of a part inflamed is resisted by a conservative force, ever present to save from destruction parts injured through accident or disease. Different degrees of inflammation, causes, nature, pathological changes, and termination are all given, together with special methods of treatment. The next chapter is on wounds, their varieties, hæmorrhage, nature's method for its control, closure of vessels, formation of thrombus, treatment of hæmorrhage from wounds, the various methods employed. These the author fully discusses, and after a careful description of compression, cauterization, torsion, acupressure, and the use of the ligature, he compares the relative value of each method, and gives a verdict in favor of the ligature; in this the majority of practical surgeons of any experience will agree; still, it must be conceded that there are circumstances in which the use of torsion, or the needle, will be advantageously employed. In continuation of this subject of hæmorrhage from wounds transfusion is mentioned and the mode of performing it described. The treatment of wounds, with a description of the various kinds of sutures is next given, and then we have a description of the after treatment of wounds. In this the author

admits the advantages to be gained by the antiseptic method, which he declares he is satisfied from his own observations to be superior to all other methods of treatment. The different kinds of wounds are next given: these are considered under the headings of incised wounds, lacerated and contused wounds, contused wounds proper, punctured wounds, and poisoned wounds; under this heading will be found dissection wounds, malignant pustule, foot and mouth disease, glanders or farcy, hydrophobia, bites of poisonous insects and venemous snakes, and lastly gun-shot wounds. This is a most interesting chapter, especially that portion relating to the poison wounds of insects and snakes, as so little is to be found on this subject in other surgical works.

Injuries of the head form the subject of the third chapter, in which will be found first, a few general considerations, and subsequently, a description of injuries of the scalp, gun-shot wounds of the scalp, and their various complications, such as erysipelas, injury to the cranial bones, and injuries to the brain or its membranes, &c. The fourth chapter is devoted to wounds and injuries of the chest and abdomen; in the fifth chapter wounds or injuries of the extremities are taken up and discussed. In chapter six we have the diseases of the abdomen, such as morbid growths, cysts, fistulæ, ascites, in which the method of performing paracentesis is described. Intestinal obstruction, intussuseption, organic change in the walls of the intestine, cicatrices, &c., and in this connection is considered the advisibility of colotomy. In giving the statistics of colotomy, the author includes one case only of lumbar colotomy, as having been performed in Montreal, whereas there have been published five cases by the writer, and one by Dr. Ross. As to the results of these six cases, the first a woman, operated on by Dr. Fenwick, died ten months after the operation from a severe attack of cholera. The second, woman, operated on by Dr. Ross, is, we believe, still living. The third, a child of eleven years, operated on by Dr. Fenwick, for epithelioma extending up the rectum above the reach of the finger, is, or was alive two months ago, November, 1878. The fourth case was in a syphilitic woman. There was a long meso-

colon, and hence the peritoneal cavity was opened she died of peritonitis. The fifth case, likewise for syphilitic disease of the rectum, by Dr. Fenwick, recovered and is still living; and the last case in an aged man for cancer of the rectum, extending high up, also operated on by Dr. Fenwick, was greatly relieved, and lived in comparative comfort for seven months after the operation. We fully believe in the advisability of colotomy in cancer of the rectum, especially when the disease extends so high up the bowel as to preclude the chance of adopting other operative measures, although on two occasions we have removed the end of the bowel after Lisfranc. Here again, in speaking of excision of the rectum, our author is slightly in error. At page 435, he remarks: "In this country ten cases have been operated on—2 by Busche, 1 by Mott, 1 by Marsh, 1 by Bridden, 3 by Levis, 1 by Dr. J. R. Wood and 1 by myself."

Chapter VII. is on diseases and injuries of the blood vessels. In the next chapter we have the ligation of arteries. Chapter IX. contains a description of surgical dressings, and in the last chapter there will be found a description of injuries and diseases of the osseous system. The illustrations throughout the work are very clear and well executed. They number 897. Many of them are familiar, as they adorn the pages of other surgical works, but in saying this we do not wish to infer that they are misplaced, as they add much to the interest and usefulness of the work. Whenever an illustration is borrowed, it is duly accredited. Some of the wood cuts are from the Surgical History of the American War of Rebellion. These the author acknowledges to have received through the kindness of the Surgeon-General of the United States Army. A large number of the illustrations are, however, from original drawings by Mr. Faber. There is a very complete index, which adds to the interest of the volume. The statistical tables are of great use, as they are conveniently arranged for reference. We think a better classification might have been adopted, as the number of good things appear pretty well mixed. Nevertheless, this must be looked upon as a valuable addition to the many excellent treatises on surgery which have within the past few years issued from the press, and we shall look forward with interest to the completion of the work in the issue of the second volume.

Practical Surgery; including Surgical Dressings, Bandaging, Ligations and Amputations.—By J. EWING MEARS, M.D., Demonstrator of Surgery in Jefferson Medical College, &c., &c. With 227 illustrations. 8vo. pp. 279. Philadelphia: Lindsay & Blakiston, 1878.

This little book is dedicated to Prof. Gross, and is intended as a manual for students, to whom it is an object to have their work presented in as concise a form as possible. We venture to say, that the book, so far as it goes, fulfils the expressed intention of the author, and that students will find it a useful work during their accademical course, and, also subsequently in their professional career.

In these days hand-books of all kinds and descriptions are rained upon us. The student finds short and more or less useful compendiums on almost every subject, and it is possible that while to the diligent these may be very useful as aids to memory and as means of fixing more extended reading in the mind, to the indolent or superficial they may prove as snares and pitfalls.

The title of the present work might, we think, be improved, and it would give a more exact idea of its contents. If the word "comprising" were used instead of "including," for the book consists of nothing but four parts: one upon Surgical Dressings, one upon Bandaging, one upon Ligations, and a fourth upon Amputations.

These subjects are well and concisely treated, and short as the descriptions are, they cannot be accused of obscurity.

The first part, upon Surgical Dressings, is good, and ends with a description of the Antiseptic system of dressing wounds. The second part gives us a description of the various forms of bandages and their modes of application, and here, as well at elsewhere through the book, we recognize many familiar illustrations for which the author is careful to give his acknowledgment in the preface.

Parts III and IV, on Ligations and Amputations, respectively, are well written, and deserve careful study.

Altogether, this is a useful little book, which may be recommended without hesitation.

The Pathological Anatomy of the Ear. — By HERMANN SCHWARTZE, M.D., Professor in the University of Halle, pp. 174, with numerous illustrations. — Translated by J. ORNE GREEN, A.M., M.D., Aural Surgeon to the Boston City Hospital, and Clinical Instructor in Otology to the Harvard University, Boston: HOUGHTON, OSGOODE & Co.

This valuable work is a translation from the original German of the sixth part of Klebs' well-known hand-book of Pathological Anatomy, and constitutes a valuable addition to the literature of Otology.

The difficulties in the way of a successful study of the pathological anatomy of the ear are so great that morbid anatomists have, almost without exception, shunned a labour which promised so little return.

Since the days of Toynbee, however, there is a small but scattered fraternity of earnest workers, to whose patient investigations the writer of this work is largely indebted for the material it contains. This may be said, without in any way detracting from the merits of Professor Schwartze's own labors, for he is acknowledged to stand among the foremost in the field. To the otologist the work is of extreme interest and value. The translation has been carefully done, and "is issued both to show what has already been accomplished in this branch of otology, and with the hope of directing still further attention to pathological anatomy, the only solid foundation for a still further advance in our knowledge of disease of the ear."

All the morbid conditions to which the ear is liable are discussed as fully as the present state of knowledge will warrant, and the illustrations given are most interesting and instructive. There is certainly no other work on the pathology of the ear so complete and exhaustive as this one.

Essentials of Chemistry, Inorganic and Organic; prepared for the use of Students in Medicine. By R. A. WITTHANS, A.M., D.D. 12mo. pp. 257. New York: William Wood & Co., Great Jones Street, 1879.

This little work is in the form of questions and answers, by which it is expected that the student will be able to post himself in the necessary minutiæ to pass an examination. It is a compendium solely intended for this purpose, and may be found of use to the advanced student. We do not think, however, that this style of work is commendable, except for the purpose for which it is apparently intended, namely, to refresh the mind already stored with chemical facts.

Extracts from British and Foreign Journals.

Unless otherwise stated the translations are made specially for this Journal.

THE PAST AND THE PRESENT;

OR, THE CONDITION OF THE SURGICAL WARDS BEFORE THE INTRODUCTION OF LISTER'S ANTISEPTIC METHOD CONTRASTED WITH THEIR PRESENT STATE.

By Prof. Dr. Von Nussbaum of Munich.

Translated from the German by F. Buller, M.D., M.R.C.S., Eng.

Up to the year 1875, I employed Lister's method occasionally. More often the ordinary plan of treatment, or the open treatment of wounds. In addition to this I often experimented with chlorine water, but from 1875 on, all my patients were "Listered." Fresh wounds were "Listered" immediately. Wounds which were suppurating and septic on admission, were cleansed with an 8 per cent. solution of chlor. of zinc, and then Listered. In this way a thorough and most satisfactory transformation has taken place, and my clinique once of evil, is now of good report.

THE PAST.	THE PRESENT.
An offensive odour of decomposing pus pervaded the atmosphere of the wards, the patients were pale, sallow and wretched, many a countenance wore an expression of pain and distress. All the temperature charts registered such temperatures as 103, 105, 106, 107.	Now the air of the wards is fresh and odourless, the patients have a healthy color and are happy; moans and lamentations are nowhere audible, although the morphine bottle has almost lost its vocation. The temperature charts read 98.2, 98.6, 99.5, 100.8.
The wards were full.	In many of the wards there are only two or three patients, whilst formerly they were occupied by ten or twelve.
Nearly all the patients soon after admission went through an attack of so-called hospital fever (Spitalgastricismus), which often reduced them very much and lasted, as a rule, two or three weeks.	The patients eat and drink with enjoyment, the so-called "Spitalgastricismus" is rarely seen, evidently because the air is free from poisonous vapours.
Injuries of the head, complicated fractures, resections and amputations, in a word, nearly every patient	

THE PAST.	THE PRESENT.
with a wound of bone became a victim of pyæmia, even flesh wounds were not exempt from the same evil.	No pyæmia.
Of seventeen amputations there were eleven deaths from pyæmia. Despite the open treatment of wounds, or the treatment by continued warm water baths, or by ferrum candens hospital gangrene, with its terrible results, had become so common that at least 80 per cent. of all wounds and ulcers were affected by it.	No Hospital gangrene.
Nearly every wound took on erysipelatous action.	No erysipelas.
Of the numerous head wounds, most of which were of medico-legal interest, the large majority perished from pyæmia if there had been any bone injury. Some recovered after several attacks of erysipelas with severe fever, convalescence being thereby delayed for many weeks, and a further period of several months ensued, during which the patients thus prostrated were unfit to resume their employment.	Injuries of the head scrupulously treated by the antiseptic plan, after the head has been shaved and cleaned with ether, the wound disinfected with an 8 per cent. solution of chloride of zinc and drainage tubes inserted in the deeper parts, heal as a rule by first intention, so that treatment in hospital is much abridged. This holds good even in cases of injury to the brain.
During seventeen years no case of injury to the brain recovered.	Cases often recover without fever, in which during the first two or three days brain substance escapes through the drainage tube and the bone is mueh depressed.
In wounds of the neck, the stitches all cut through during the period of profuse suppuration, and if the patient escaped with life the process of healing by granulation lasted many months.	Now, the wounds of the neck being disinfected with chloride of zinc, stitched with catgut and suitably provided with drainage tubes it seldom happens a stitch cuts through. The suppuration is rarely profuse and the healing process is speedily accomplished.
Penetrating wounds of the thorax always terminated fatally, with profuse and fœtid suppuration, even though at the outset they seemed to promise well.	Penetrating wounds of the thorax often heal rapidly without any elevation of temperature.
Penetrating wounds of the abdomen, laparotomy and operations for hernia in which the peritoneum was	Penetrating wounds of the abdomen, in which proper drainage can be secured, now heal without any untoward symptoms. We perform laparotomy without any fear of an unfavorable result.

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wounded, almost all died with the too obvious signs of septicæmia. The icteric skin, the scanty dark colored urine, the fœtid breath and high temperature were the ordinary forerunners of an inevitable collapse.	Operations for hernia we consider to be devoid of danger, provided the intestine is not gangrenous. In these cases we have never met with septicæmia. We have successfully performed the radical cure of hernia, by stitching the neck of the sac firmly together with catgut and cutting away the sac itself.
Ovariotomy was followed by the same train of symptoms and a like result, even when an uncomplicated operation and the absence of symptoms indicating peritonitis seemed to warrant a favorable progress.	The operation of ovariotomy is three times as successful as formerly. The healing of the wound now takes place in quite a different manner, and we have repeatedly observed cases in which during the short period of twenty or thirty days convalescence, the temperature did not once exceed 100·4 and the patient never felt unwell.
In cases of resection and amputation, the mortality from pyæmia was, as already mentioned, something appalling. Although everything seemed to be going on well for several days, a sudden and violent chill, followed by perspiration, put a damper on all hope of success; for in the course of a few hours all the healthy granulations had disappeared, and in the place of a creamy pus was a watery fœtid ichor. Pleuritic stitches, shortness of breath, liver pains, and swelling of the joints soon became manifest, indicating the different localities in which metastases had occurred. The lungs and pleura were the favorite seats of pyæmic deposits. In some post-mortems we found as many as one hundred abscesses and infarctions distributed throughout the body, some of them were found even in the muscles of the extremities. In seventeen years of clinical service I had never once seen a patient recover if a metastatic deposit occurred after a chill, although every remedy recommended for pyæmia received a fair trial, from Quinine and purgatives to infusion and transfusion of blood, removal of affected bones, &c., &c.	Cases of resection, in which there is not free suppuration and septicæmia before the operation now heal for the most part by first intention. If such cases are already in a septic condition one or two applications of chloride of zinc often suffices to bring about the antiseptic state, and if we succeed in this, healing takes place in an astonishingly short space of time and the condition of the patient improves in a most satisfactory manner. Œdematous infiltrations wherever occurring, loss of appetite, unhealthy color of the skin, &c., &c., all these disappear entirely in the course of a few days. Amputations now usually heal in from eight to ten days by first intention, an event which I have never once observed in the previous seventeen years. The pain which used to occur during some hours or days after amputation is now unknown. The patient now and then complains of a slight burning sensation, after amputation; generally there is entire freedom from pain, cheerful demeanour, and a good appetite. The patient recovers in about one-tenth of the time formerly required.

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I even tried inunction of strong perchloride of mercury salve, as recommended by Heime, until enormous ulcers and bloody stools occurred, but the slight benefit seemingly thereby obtained, lasted only a few hours.	
As things were I scarcely ventured to make an incision into the joints, and when impelled thereto by dire necessity, death from pyæmia was the usual result.	
Incision of joints now performed, with so much success, is the best test of the merits of the two methods of treatment.	Incision into joints can, as is well-known, be made antiseptically without danger. In inflammatory affections the sooner this is done and the exudation allowed to drain off the better will be the result.
Incision of joints and laparotomy have done more than any other surgical procedure towards overcoming the last rival of the antiseptic method. I refer to the "open treatment," for no surgeon would now think of trusting to the open treatment of incised joints. In my humble opinion, the inefficacy of the open treatment is hospital gangrene such as raged in my wards, was enough to condemn it.	Anchylosis then never ensues. The immediate and brilliant result of incising inflamed joints in which there was no exudation, and therefore no necessity for drainage, has often astonished me beyond measure; after incision the violent pain and constitutional disturbance disappear like magic. The immediate relief can, I think, only be accounted for by the relaxation of the joint capsule.
Ulcerations of the feet and legs necessitated a very long sojourn in the hospital, and were often complicated with erysipelas, hospital gangrene, and exfoliation of bone.	Ulcers of the feet and legs which formerly remained unhealed for an indefinite period, and furnished many victims to erysipelas, and hospital gangrene, recovered under the boracic lint treatment with extraordinary rapidity.
Those ulcers upon which I performed my operation of circumcision, did not suffer from relapses, but this operation is so severe a measure, that it is only justifiable in very bad cases, upon the principle that the remedy must never be more dangerous than the disease. The duration of treatment in Hospital was almost interminable.	Wet boracic lint, covered with gutta-percha, cleans the foulest ulcers in five or six days. The ulcer when thoroughly cleaned and healthy may be disinfected with an 8 per cent. solution of chloride of zinc; the surrounding skin washed with a 5 per cent. solution of carbolic acid, and the healing process much accelerated by Reverdin's "Skin Grafting." The treatment in Hospital of wounds

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If a case of amputation or resection was fortunate enough to escape pyæmia, it was only to suffer again and again from attacks of erysipelas or Hospital fever, or the wounds became covered with an unhealthy exudation which had to be destroyed by caustics or ferrum candens. I often felt like abandoning all operations in despair, but there was no choice, and I had to content myself as best I could with never-ending complaints, and petition after petition for the construction of a new Hospital as the only hope of doing away with this lamentable state of things. Still more remarkable are the mortality statistics. Among an equal number of patients, with the same hospital accommodation there were exactly twice as many deaths, and this is the most conclusive argument that can be urged in favor of the antiseptic treatment.

Formerly strong and healthy young people died from the most trivial wounds.

Nearly all complicated fractures, amputations and resections were fatal, for this reason alone it seems to me quite worth while to compare the pictures of the past and the present.

THE PRESENT.

and injuries which remain antiseptic, is very much shorter than it was under the old system. Nevertheless, it may appear strange at first sight that the average duration of days in hospital has not diminished. The explanation is easy. Many severe injuries, and complicated fractures, with purulent periostitis, laceration of muscles, &c., which used to perish from pyæmia in a few days, now escape with life after a long period of careful treatment. Many complicated fractures of the lower extremities, which formerly died in from 8 to 14 days, now remain in the hospital from 60 to 80 days, and at length recover and are able to resume their employment.

Although the death rate is now just half what it used to be, it must be borne in mind, that with the exception of the local treatment of surgical cases, everything else has remained unaltered. Of those who die, a large proportion are from the nature of their maladies, beyond the reach of surgical aid, such as tuberculous subjects and cancer patients who come to the hospital in the last stages of the disease; persons who have been fatally stabbed or shot, suicides, fractures of the skull, &c., &c., of so severe a kind, that neither the antiseptic nor any other mode of treatment can possibly be of any avail.

The antiseptic method has not only been of service to those who are treated by it, but all the other patients suffering from wounds or injuries, which, from their nature, cannot be healed antiseptically, also derive benefit, inasmuch as their surroundings are more favorable. They remain free from pyæmia and hospital fever, because the air they now breathe is vastly more free from impurities.

Popliteal Aneurism treated by Esmarch's Bandage.—Mr. J. Hutchinson, at a meeting of the Clinical Society of London, related the following two cases. The subject of the first was a robust gentleman, aged 26, who had never had syphilis. The tumour filled the right popliteal space, and pulsated strongly. There had been pain for three months, but the pulsation had been recognized only a month. He had been placed under Mr. Hutchinson's care by Mr. Drew. After three days rest in bed, ether was given, and Esmarch's banding was applied to the entire limb. It was put on tight below the knee, very lightly over the tumour, and tightly again on the thigh. The elastic strap was applied as tightly as possible in the upper third, and after a little time the bandage was removed. The tumour was left full of blood, which was completely stagnated. Anæsthesia by ether was kept up for an hour, and at the end of that time the strap was removed and a horseshoe tourniquet substituted. No pulsation returned in the tumour, but as a matter of precaution the tourniquet was retained for a few hours. The subsequent recovery was rapid and complete. The second case was less speedily successful. Its subject was a gunnery instructor from Shoeburyness, who had been treated by pressure for an aneurism in the calf two years previously. On that occasion, success had been obtained by thirteen days' compression. The aneurism on the second occasion filled the popliteal space, and was of the size of a large orange. It pulsated strongly. Esmarch's bandage, under ether, was used for one hour in exactly the same way as in the previous case, but with no benefit. The tumour beat as before. Three days later, another trial was made of the same plan, but on this occasion arrangements had been made, by relays of students, to keep up digital pressure after removal of the constricting strap. The man was kept under ether for two hours. At the end of that time the strap was removed, and during the change of hands it became evident that pulsation was still present, but it was more easily controlled than before. Manual compression was kept up for about seven hours, at the end of which time pulsation had quite

ceased. The tumour remained solid, and rapidly diminished in size, and the man left the hospital a few weeks later quite well. It was thought that in this case, although the Esmarch's bandage did not produce consolidation, yet it conduced to the cure, and certainly on neither occasion did it do any harm. Mr. Hutchinson stated that he had brought forward these cases, in neither of which was there anything original in the treatment, in order to elicit from surgeons statements of their experience and opinions in reference to this novel and important method. He acknowledged his obligation to his colleague Mr. Warren Tay, Mr. Price, and Mr. Bennett, for their assistance in carrying out the details.—Mr. Thomas Smith, by the use of Esmarch's bandage, applied as he had seen Mr. Croft applied it at St. Thomas's Hospital, had cured two cases, and had failed with two. In a recent case, no chloroform was given, and the bandage was applied tightly below and above the tumour, and left in place. He considered this better than constricting the limb by the cord—a proceeding which, on the continent, had been followed by permanent paralysis from injury to nerves. The pressure was more diffused by the bandage. In the last case, which occurred to a member of the medical profession, the bandage was alternated with pressure by a tourniquet over the artery, and the treatment lasted from 9 a.m. to 6 p.m., at which time great pain was felt in the swelling, and coagulation probably took place. Pressure was kept on for an hour and a-half after this, and the result was entirely successful.—Mr. Morrant Baker had had an unfavourable case in a man aged forty or fifty, where some blood had escaped from the aneurism, which he had treated successfully. After a preliminary imperfect application, the bandage was kept on for three-quarters of an hour, followed by half-an-hour's compression with the finger, and was re-applied for twenty minutes, and compression again kept up for nearly two hours. No anæsthetic was employed, no pain was complained of; and at the end of that time the aneurism was consolidated.—Mr. Maunder thought that there was no single certainly successful method of dealing with these cases. He had tried Dr. Reid's

plan twice; both times unsuccessfully. One was cured by digital compression, and the other by ligature. In his opinion, the objection to this bandage was that it was painful, and required an anæsthetic with its attendant risk.—Mr. Barwell agreed that no single method could be relied upon, but that the bandage was especially unsuitable in fusiform aneurisms. He had tried it in a bad case, where there was extensive arterial disease, with fusiform aneurisms in the axilla and brachial arteries; he made use of a sort of bridge to keep the bandage off the tumour, and applied it lightly above the swelling, allowing a small current of blood to pass. After an hour and a-half, there was no result; it was subsequently re-applied twice, but he was obliged finally to ligature the artery, tying it gently in consequence of its diseased state: the man was well in ten days. Mr. T. Smith objected that this method of applying the bandage, so as to allow the current of blood to continue was essentially different from the plan under discussion.—Mr. Barwell added that on one occasion the flow was arrested for about one hour.—Mr. Herbert Page had tried the bandage without success in a case apparently well suited for it, and in the hospital at the same time a case of Mr. Lane's was treated in the same way with a like result. The plug in the distal arteries, which had been thought to precede clotting in the aneurism, was, in his opinion, a later event, and followed its cure. He alluded to a case of Mr. Pemberton's, where this method of treatment had been followed by gangrene.—Mr. Bryant related a case where the bandage was used for one hour, under the influence of morphia, by which time there was much consolidation. In two or three days, the aneurism grew worse; but the bandage under chloroform for three-quarters of an hour was followed by much improvement. It soon relapsed, and he then tied the artery. Gangrene followed in a few days, which required amputation below the knee. In his opinion, the bandage was responsible for the gangrene; and it constituted a serious, though perhaps not fatal, objection to its use. —Dr. Mahomed considered the bandage was contraindicated in cases of extensive arterial disease. He had found that, when

the bandage was placed on one arm, the volume of the other was much increased, showing that a considerably increased distension of the rest of the vascular system resulted. Where the cerebral arteries were diseased, this might be dangerous; but this objection did not apply to the ligature.—Mr. Gould alluded to two cases of aneurism treated in this way which he had examined. In both, the clot in the aneurism was loose; that in the artery, above and below, firm and fibrous. He considered that the coagulum in the aneurism was secondary, and he thought Mr. Bryant's case bore out this view. Here the clot, being soft, was broken up by the stream, which led to thrombosis and gangrene beyond. This difference in the clot he attributed to the imperfect nutrition of the walls of the sac. He still thought those cases would be successful where the opening was large and the vessel healthy.—Mr. Norton had tried the bandage without success in one case. There was extensive vascular disease, with double aortic murmur and three aneurisms. The treatment, though it failed, had none of the disastrous results Dr. Mahomed predicted, though the case was just such a one as those referred to by Dr. Mahomed. He considered the risk due to distension of the vessels as the result of compression small, indeed, when compared with the risk of a ligature where general vascular disease existed.—Mr. Heath agreed with Mr. Barwell that a fusiform aneurism was not amenable to this treatment, and with Mr. Gould in his theory of the action of this bandage. In Mr. Smith's case, however, the general state of the vessels was very unfavourable, yet a rapid cure resulted. It was quite possible that in Mr. Bryant's the gangrene was a result of the ligature, and not of the bandage. In a patient of his in whom the bandage had been twice applied, and in whom the artery had been ligatured, once in the usual way and once with antiseptic precautions, the result was of interest; the patient was strongly in favour of the antiseptic plan, from which he had suffered much less pain. —Mr. Hutchinson, in reply to the various speakers, said he thought the plan of treatment under discussion a valuable addition to the means at our disposal. It seemed impossible to

predicate as to the cases in which it was most likely to succeed; but it seemed to be a trial in nearly all. He could not admit that Mr. Bryant's case proved that any ill consequences were due to the bandage. It had simply not cured. The gangrene came on after the ligature, and should be attributed to it, and not to the Esmarch bandage. He believed that, in different individuals, very different degrees of aptitude for coagulation were displayed by the blood, and hence chiefly the explanation why some cases were cured easily and others with difficulty. The tendency to coagulation might be helped by insisting on abstinence from fluids, as was done in both his cases, and by giving drugs, such as iodide of potassium, lead, and digitalis. Whilst fully admitting the great value of digital compression, he still thought that a trial should first be given to the bandage. He had had several very rapid cures by compression; but he did not recollect any case of aneurism of similar size in which the patient had suffered less during the treatment than the first of these which he had just related. If ether were used, not chloroform, he believed that no danger was encountered; and he felt sure that the anæsthetic made the treatment much less painful. He would strongly recommend that, in all cases in which the bandage was tried, arrangements to continue digital compression immediately after its removal should be made; and that great care should be taken to prevent the blood from passing into the tumour on release of the limb from the strap —*British Medical Journal.*

On the Treatment of Diphtheria.—D. De Berdt Hovell observes in *The Lancet* the importance of giving a brisk calomel purge at the outset of diphtheria is, perhaps, not sufficiently recognised and acted on. Local applications are certainly useful, and the favourable effects of tonic medicines are a strong contrast to the very unfavorable, I had almost said disastrous, consequences of any contra-stimulant medicine. The necessity for the liberal and frequent administration of nourishment and stimulants is indicated by the great tolerance, or rather capacity, of the system to receive them;

but, all said and done, we are still fighting an unseen and treacherous enemy, and are face to face with the fact that, until the expiration of twelve or more days, we are not secure from the fatal effects of a fresh deposit.

The late Mr. John Scott used to treat severe cases of cynanche with a "scavenger"—viz., calomel, jalap, and scammony, after which they usually got well. Looking at a diphtheritic throat one day, I said to myself, why should I not give this patient a scavenger? I did so, and remarked that the subsequent course of the disease was certainly cut short. I have since adopted the plan, and invariably found that the same good results have followed; the tendency to fresh deposits has much diminished, and in many cases is wholly prevented. I can call to mind more than one case in which the attempt at a fresh deposit was clear, but very feeble.

Unhappily I have seen a good deal of diphtheria at different times since its appearance in this country about twenty-two years ago, and have treated it, on the whole, not unsuccessfully, but it was only about a year ago that the above circumstances almost accidentally forced the conviction on my mind that *elimination of the poison* ought to be the first object in treatment.

How this elimination takes place through the bowels, I know not, but diphtheria is a disease of blood-poisoning, and there is no reason why the poison should not be eliminated through the bowels any less or more than in enteric fever—in throat fever than in bowel fever. I cannot refuse the evidence of my experience that since I have adopted the practice of purging at the outset the course of the disease has been invariably more favourable, nor the testimony of those who declare that the dejections thus produced are abominably offensive. At any rate, the practical effect of "the scavenger" recommends itself to my mind in a much higher degree than the scientific inaction of temporising and waiting til the disease has run its course, however masterly such inaction may appear; or than the inferior, but by no means futile plan, of trying to neutralise the effects of the poison. Invaluable as the scientific knowledge is, it ought not to stop short, nor rest content, without improvement in practice.

Elimination, then, (1) through the bowels, (2) through the kidneys. Chlorate of potash drinks should be given frequently, incessantly. Where the nose is affected, the same solution or that of permanganate of potash should be drawn up frequently through the nostrils, so as thoroughly to cleanse them. When the patient cannot swallow, nutrient enemata should be given four times a day; not too frequently if they are to be retained. For this, nothing is better than Dr. Munk's mixture, a tumblerful of milk gruel, a new-laid egg, a teaspoonful of brandy. By following this plan a boy under the joint care of my partner, Dr. C. Kingsford, and myself, twenty years ago, recovered, although he swallowed nothing for sixteen days, and severe paralysis, or rather paresis, ensued. He is now a fine strong man.

Possibly the adverse effect of depletory treatment has tended to deter from the administration of an asperient; but in this, as in many other instances, debility is a bugbear. In one severe case I had to give three doses of calomel and jalapin, and follow each dose with a black draught, and even then it was necessarry to add one ounce of castor oil. The relief was as marked as the amount of aperients required to obtain it. The nourishment, stimulants, and tonics given subsequently seemed to be all the more thankfully received and gratefully recorded.

The tendency to rheumatism after even a slight attack of diphtheria should never be lost sight of. Possibly this is due to excess of fibrin in the blood; but of the fact I have certain experience.

Tapping the Lungs in Phthisis.—At a recent meeting of the Clinical Society of London, Dr. Theodore Williams communicated a case of bronchiectasis and lung excavation. in which an attempt was made to drain the cavity by tapping.

The patient, a man aged twenty-nine, had chronic pneumonia of both lungs, resulting in perfect resolution in one, and an induration and dilatation of the bronchi in the other. He subsequently had hæmoptysis to the amount of three pints, and lost two stone in weight. When admitted into the Brompton Hospi-

tal, in May, 1877, the symptoms were convulsive cough and fetid expectoration, containing large quantities of lung tissue, and so offensive in character as to cause frequent vomiting. There was also considerable pyrexia, the physical signs denoted consolidation of the base of the left lung, with commencing excavation. During his stay in the hospital the area over which caverous sounds were audible, increased considerably. Various kinds of treatment were tried to relieve the cough, and to facilitate and disinfect the expectoration, but all with only temporary benefit; and as the patient appeared to be poisoned more and more by the retained expectoration, and exhausted by the cough. On October 16th, 1877, a medium-sized aspirator needle was passed between the eighth and ninth ribs, in the area of the cavernous sounds, and appeared to reach the cavity, but on exhaustion only a few drops of blood followed the operation, and the puncture was subsequently closed with lint. The patient afterward suffered pain in the infra-mammary region, but as his symptoms continued to increase, a fortnight later a second attempt was made to reach the cavern; this time the intercostal space below the scene of the first operation being selected, and a trocar and a large drainage-tube were introduced. On reaching the pleura a pint of brownish, fetid fluid escaped, which proved under the microscope to consist of broken down pus cells. Symptoms of collapse followed the evacuation of the fluid, and the patient was with difficulty rallied with stimulants. The abscess was washed out with disinfectants, but no improvement took place, and the patient gradually sank, three days after the operation.

On post-mortem examination it was found that the lung contained a labyrinthine cavity formed by the breaking down of the walls of several dilated bronchi, one of which had been penetrated by the first operation. Overlying the cavity was a limited empyema, which the second operation had evacuated. The right lung was affected by recent pneumonia, the result of infection through inhaled secretion from the left, this being the immediate cause of death.—*Medical and Surgical Reporter.*

Iodoform as a Local Anæsthetic.—In a recent article in the *Winer Med. Wochenschrift*, Dr. Moleschott says he has often relieved or removed the most intense gouty pains and other symptoms of gouty inflammation within twenty-four hours, by painting on the collodion. In rheumatic pains it is efficacious, but in the various neuralgies, (intercostal, sciatic, etc.,) it succeeds excellently. Unfortunately, as most people know, iodoform has a disagreeable smell, which makes those using it objectionable to others. To obviate this Moleschott advises that the glass vessel containing the iodoform preparation (collodion, or, what he also uses, ointment) be kept outside the window, in a leaden box provided with a well-fitting cover, the opacity of the box having the additional advantage of retarding the decomposition of the iodoform by light. He also covers with gutta percha tissue the part anointed with the collodion; and if possible, only applies the iodoform at night, so that most of it is absorbed, or has evaporated, before the morning, and what remains (if the ointment is used) can easily be removed with soap and water. The use of iodoform sometimes causes cardiac palpitation, but Dr. Moleschott has also more than once found a weak, irregular pulse rendered stronger and more regular by small internal doses of iodoform, just as by small doses of digitalis.—*Medical and Surgical Reporter.*

On Insolation and Refrigeration.—Dr. Kirchner has recently carried out a series of experiments on animals with a view to gain an insight into the pathogenesis of the two allied processes, insolation and refrigeration. He deduces from them that the latter may be characterized as prostration of the vital forces, and, first of all, of respiration and circulation. The morphotic and chemical alteration of the blood resulting therefrom, particularly its impoverishment in oxygen, is the immediate cause of the derangements that directly threaten life. Warmth, on the other hand, acts as an irritant on animal organism, and when in excess leads to exhaustion. This constitutes the essence of insolation. As in the case of refrigeration, the foundation of the symptoms is the exhaustion of the oxygen

of the blood, which here too is the consequence of the failing respiration and circulation. The appearance of rigidity during exposure, either to cold or heat, indicates excessive lack of oxygen in the blood. This rigidity is, like the rigor mortis, an anæmic muscular tetanus. If, however, we put coagulation, or, in other words, coagulation of the muscles, out of the question, tonic muscular rigidity is not commonly met with in cases of refrigeration or insolation.

The deleterious action of extreme temperatures on the organism is heightened by other weakening influences which tend to impair the supply of oxygen and to exhaust the resisting power of the system. Here must be mentioned, particularly, the misuse of alcohol. In addition to these acute effects of the action of cold and heat, there are analagous chronic conditions, which must be ascribed to the gradual action of extreme temperatures in the organism. They are characterized by manifestations of anæmia or exhaustion, and in their higher grades partly constitute the basis of the tropical and polar cachexias. It is still an open question whether any other specific diseases owe their origin to the influence of heat and cold. The fact that abdominal typhus occurs most frequently during the latter part of summer and towards the end of winter, has not yet been satisfactorily accounted for; and, as in many cases, no external source of infection can be discovered, it is, in fact possible that the morphotic and chemical alterations of the blood and tissues, which have been proved to be the pathological effects of insolation and refrigeration, play at least a subsidiary role in the production of the infection.—(*Allg. Med. Cent. Zeit.*, No. 47, 1878).—*Medical Record*, N. Y.

The Surgical Treatment of Lupus.—In an article by M. Hillariet, quoted in the London *Medical Record*, the writer says:—

It was Veiel who first introduced acupuncture. The method consists in pricking the surface of the lupus with needles, either in bundles, or fixed in the same handle, but separated from one another by some millimeters. The needles, before being used,

should be heated to a red colour. This plan, is however, at the present time much less employed than the scraper and linear scarification. Volkmann invented the scraper, and published his proceeding in 1870. It consists in scratching the surface of the lupus with curettes of different shapes, but generally of small dimensions. It is necessary, in order to aid the action of the instrument, to raise up all the lupoid tissue, and one may be satisfied with the result when the curette comes upon more resisting parts; this is healthy tissue; the operator should then stop. It is generally necessary to repeat the operation one or more times a month until the healing of the lupus is complete. Volkmann and Hebra both advise cauterization of the scraped surface with nitrate of silver. This method of Volkmann's gives very good results, but it is not applicable to all cases of lupus, and I more often employ linear scarification. To practice this, a needle, slightly flattened, with sharp edges may be used. Or, following the example of Balmanno Squire, a scarificator with numerous blades, which he has expressly constructed, may be used. Personally, I find the needles most easy to manage, and I make the linear incisions separated by a few millimetres. I place my incision in such a way that some are perpendicular to the others, and I repeat the operation one or more times a month until the lupus is well. I have obtained by this practice very good results, and I believe that this method is destined to be of great service. It offers one inconvenience, that is, it gives rise to hemorrhage, which may be very abundant, and in patients with frail constitutions this may be injurious. I should say a great deal of this loss of blood may be avoided by applying to the lupoid surfaces, before operating, some convenient anæsthetic and afterward by the immediate use of perchloride of iron; this may be simply done by means of a piece of blotting paper, as recommended by Balmanno Squire. Another recommendation of linear scarification is, that it can be more easily and more promptly repeated than cauterization.—*Med. & Surg. Reporter*,

Copaiba in Cirrhosis and Jaundice.—The value of copaiba as a diuretic, and cholagogue is not sufficiently appreciated. The following case, reported in the *British Med. Journal*, by Dr. J. B. Massiah, illustrates it:—

W. D., aged 37, a clerk, was a spirit drinker for four years, seven years ago; and during the last four years and a half has had three prolonged and painful attacks of jaundice, with ascites and œdema of the lower limbs. On admission, three months ago, he was tawny, thin and rather weak. He complained of constant pain in the umbilical and lumbar regions. His fluctuating abdomen measured thirty-four inches in circumference, and the vertical hepatic dullness in the nipple-line was three inches. The urine was scanty, bilious, and exalbuminous.

During the first month he took bitartrate of potash and compound jalap powder; and the abdomen increased two inches, the urine remaining scanty. Then, under a scruple of copaiba thrice daily, rose on successive days, from one pint in twenty-four hours to three, four and five pints; while the ascites began to subside. Once, for a fortnight, he took half a drachm of tincture of belladonna thrice daily, for the abdominal pain, and the quantity of urine fell below two pints daily. The abdomen now measures thirty-three inches in circumference, and his general health is much improved.—*Med. & Surgical Reporter.*

Necrosis without Suppuration.—William Colles, M. D., in the *Dublin Journal of Medical Sciences* for December, 1878, reports the following case:—

"F., aged 15, healthy, was thrown from a carriage and received some bruises on the face; also there was a slight transverse wound, about one fourth of an inch, at the ulnar side of the left wrist close to the joint. Through this opening projected a small piece of very rough bone, which was considered to be the lower end of the ulna broken off and projecting. It could not be restored or retained in position. Two days later she was put under the influence of chloroform, but it was still found impossible to restore the natural form of the limb. It was therefore determined to remove the projecting piece.

With this view the piece was caught in a forceps, and a director passed behind it. It was found that the latter instrument could be easily passed for a considerable distance in all directions without obstruction from ligamentous or other attachments. On bending the hand backwards, and pressing the director inwards, there slipped out a portion of bone two inches long. On examining the forearm, the bones seemed quite naturally in their position, but perhaps slightly larger than those of the opposite limb. On examining the bone extruded, it was much smaller than would be expected in a person of her age; it was quite devoid of periosteum; no cartilage or epiphysary end, but a small rough deposit of new bone; the upper end irregular, jagged, but in no part did it present any appearance of its having been acted on by living parts; and on section—which was difficult, from the dryness and friability of the bone—the medullary cavity was the same as in ordinary section of bones.

"On further inquiry it was found that about eight or ten years ago the patient fell and received what was called a sally-switch fracture of both bones; this was treated by splints and rest; she recovered with perfect use of the limb, but there was a slight thickening of the bone.

"That this was a case of necrosis there can be no doubt; and if it was the result of injury, it must have been of only two days' duration, which is scarcely possible for the bone to die, to lose its periosteum, cartilage, and epiphysary end, and for a new case to be formed around the dead bone. Hence it was more probably the result of the fracture received so many years ago." —*Medical Record, N.Y.*

Gastro-elytrotomy.—A very interesting historical account of this operation, by Henry J. Garrigues. M.D., has been reprinted in pamphlet form from the *New York Medical Journal*. It was first proposed by Joerg in 1806, but his idea was an incision in the median line involving the peritoneum. In 1820, Ritgen, profiting by Joerg's suggestion, and improving on it, performed the operation by a lateral incision above Poupart's ligament and elevating the peritoneum. He incised the vagina,

however, instead of tearing it, and the operation was abandoned, and a living child being delivered by Cæsarian section. From 1823 to 1844 Baudelocque, apparently ignorant of his predecessors, championed this operation or some of his numerous proposed modifications of it, and performed it in two cases unsuccessfully. From this time it was forgotten, or mentioned only to be depreciated by the authorities on obstetrics, until 1870, when Dr. T. J. Thomas performed it, and delivered a living child. Dr. Thomas has since operated once, and Dr. Skene, of Brooklyn, three times, making in all five cases; of these, three of the mothers are still alive, and four living children were delivered; the fifth child was dead before the operation was undertaken, and the two women who succumbed were in *articulo mortis*. The necessity of tearing the vagina instead of cutting it is strongly insisted upon, as troublesome and even dangerous bleeding from the vaginal plexus is thus avoided. The operation cannot be repeated upon the same side, as it would be impossible to raise the peritoneum and lift the vagina. When the head is wedged in the pelvis, so that it cannot be pushed up, the incision of the vagina becomes impossible, and the operation is contra-indicated. The obstruction offered by the presence of a solid tumour in the vagina or uterus, or by atresia or coarctation of the vagina, may also be a sufficient contra-indication Dr. Garrigues's conclusions are: 1. Gastro-elytrotomy ought, when possible, to be performed instead of Cæsarean section in all cases; and instead of operations by which the fœtus is broken up when these would be particularly difficult, especially when the smallest diameter of the pelvis measures two inches and a half or less. 2. It does not require exceptional skill or rare instruments. It is, indeed, less difficult than ovariotomy and herniotomy. 3. Five assistants are desirable, and four indispensable, in order to carry out Thomas's plan.—*Medical Record, N. Y.*

Ergotin in a Case of Uterine Fibroid.—(Note on the use of Ergotin in a case of Uterine Fibroid, by J. CRAWFORD RENTON, M.B., Extra Assistant Surgeon to the Western Infirmary, Glasgow:—

May 1st. — To-day saw Mrs. L., æt. forty-five. Patient complains that for the last six months her menstrual periods, have been increased in frequency, and the discharge doubled in amount; for the past three months she has hardly been free from the discharge, and at times it has poured from her, producing faintness. She also suffers from breathlessness on any exertion.

Her appearance justifies her statement, as she looks anæmic and the exertion of speaking tries her; she is a spare, thin, slightly-built woman. Her previous history shows that she has always had a copious discharge, and on one occasion, after a miscarriage she suffered from severe hæmorrhage. Her children are healthy and her family history good.

Examination per Hypogastrium. — On pressure patient complains of slight tenderness in the left iliac region. No enlargement of the uterus can be felt.

Per Vaginam — Cervix is found to be thrown forward towards the pubes, and posteriorly Douglas' space is filled by a large mass of dense consistence, which is slightly movable upwards. Os closed. Sound passes three inches. Heart sound weak, and a loud anæmic bruit is heard over cardiac region.—No signs of any pulmonary or other complication. Urine normal.

3rd.—Professor Leishman, to whom I am indebted for the above report of the pelvic conditions, saw the patient along with me, and coincided with me in recommending rest in bed, good diet and a trial of ergotin, either subcutaneously or by suppositories. He suggested in addition the introduction of a Hodge's pessary to give support and, if possible, to raise the tumour upwards and forwards.

4th.—Three grains of ergotin injected subcutaneously, but the patient suffered so much pain in her arm after it that we had recourse to suppositories, four grains in each. At first she had

two daily, but the discharge continued so profuse that we increased the dose to four, equal to 16 grains.

12*th.*—After having the above four days, she suffered from severe headache and sickness, but the discharge diminished, and for the first time for three months she was free from the drain on her system. She was now ordered to have two suppositories daily, and this was continued for a week, and then only one was used until the 26th, when the discharge commenced again, but not in the severe manner it had done formerly.

28*th.*—As several clots came away to-day, the dose was doubled.

June 5*th.*—Discharge quite ceased.

12*th.*—Patient is steadily improving; she has been allowed to rise and rest on a sofa. A tracing of her pulse at this period showed a very weak wave, and she was ordered Postans' citrate of iron and strychnine, the ergotine being omitted.

16*th.*—Four grains of ergotin resumed at night.

30*th.*—Discharge commenced and continued in moderate degree for ten days.

She mentioned that she thought there was a difference in the colour of the discharge, and she asked if it were possible the medicine were coming away in it.

She was requested to omit using a suppository for two nights, and to send a specimen of the menstrual fluid, as also of the urine, for examination. On being tested the former gave with potash a distinctly fishy odour, which was appreciated by other medical men who happened to be present (odour was not due to putrefaction); it was again examined the following month, and the same odour felt. The urine gave no such reaction with potash.

October.—Patient continues to menstruate regularly, and her general health has so much improved that she is able to attend to her household duties with comfort. She still uses the ergotin for five days previous to a period.

We think we may fairly ascribe the improvement in this case to the ergotin, and if further observation confirms the presence of the drug in the discharge, it will go far to establish its affinity for the uterus.—*The Practitioner.*

CANADA

Medical and Surgical Journal.

MONTREAL, JANUARY, 1879.

THE PRESS AS AN EDUCATOR.

We have been forcibly impressed with the influence of the press for good or evil, and we are inclined to believe that in very many cases it is a promoter of immorality. This, in a great measure, proceeds from the prurient desire of the general public for scandalous gossip. As a rule the public taste lies more in the line of what is horrible and shame-faced, than of what is instructive, of good report, or of moral worth. If a paper were published which excluded everything that was immoral, or the recounting of the misdeeds of misguided men and the punishment for crime. If its pages contained alone the fair side of humanity without any of its debasing qualities, it would be regarded as too tame, not worth reading, and therefore would have no circulation. No person would be bothered with such literature; so that for the purpose of securing ready sale and a large circulation, a paper must have a large supply of the horrible intermingled, with a view of pointing to a moral. On this subject the *Pacific Medical and Surgical Journal* remarks as follows:

THE PRESS AS A PROMOTER OF CRIME.

"The infectious tendency of vice and crime is universally acknowledged. Sporadic cases develop the epidemic diathesis in proportion to the publicity which is given them by the tongue and the press. Suicide offers a marked illustration. A consideration of this vice brings in view the influence of the press on the morals of society. Custom looks at the fair side and regards the press as a source of light, knowledge and morality. The other side does not appear, for there is no medium through which it can appear but the press itself, and the press will not publish its own shame. If the every-day expressions of individuals concerning the press could be embodied in one utterance, thunder would be gentle music compared with the report. If the press, or any considerable portion of it —we mean the *secular* or the newspaper press—were conducted with the motive of diffusing useful knowledge and cultivating morality, the case would be different. But unfortunately, though this motive may enter into its management, a newspaper is good for nothing unless it publishes every-

thing, good or bad; and hence its contents are gathered promiscuously from the public sewer, and it becomes a vehicle, not for choice and useful reading, but for everything true and false, clean and unclean. The question is, not what will most benefit the readers, but what will most benefit the publishers and increase the demand. Deeds of violence and blood are choice materials for extensive elaboration. Sexual misconduct and obscenity are hunted up with keen relish. Scandal, slander, rumors of private affairs true or false, advertisements of fortune-tellers, quacks and abortionists—such is the modern newspaper; the "palladium of liberty," the messenger of intelligence and reform! Much is said of late concerning sewer-gas as a source of physical disease. We may regard the daily press with a few honorable exception, as a great moral sewer stealthily pouring into our domiciles the germs of moral depravity—the more dangerous because commingled with the current news which is as necessary as our daily bread."

TROMMER EXTRACT OF MALT COMPANY.

Nothing can be more discouraging to the practising Physician than the gradual decline of patients from exhausting disease due to faulty assimilation, yet how common is this the case. The physician exhausts his *armamentorium medicorum* going through the whole category of tonics and nutrients, and still his patient passes on in a gradual, sometimes rapid course, from bad to worse.

We do not assume that the Extract of Malt is a universal panacea, but that it is suitable in the large proportion of such cases cannot be denied. The testimony of physicians in all countries is sufficiently pronounced to arrest the thoughtfulness of the practitioner and to induce him to believe that there is a means of relief ready and at hand for these very hopeless cases, in this malt extract.

Cod liver oil was, when first introduced, considered a cure-all, especially in debilitating maladies, yet there are cases in which this remedy, for it is a highly useful one, will fail most signally to give even temporary relief. Cod liver oil comes more properly under the denomination of a food, but there is such a thing as giving food to a stomach incapable of utilizing it.

Malt extract from its chemical composition seems suitable to these very cases when through some want, the assimilation of the food is not properly carried on. It is found to contain Malt Sugar, Dextrine and Diastase. During the process of digestion the starch is first converted into dextrine and finally into glucose, hence if the starch of the barley is already converted

into dextrine its final transformation into glucose is more readily effected than if presented to the digestive apparatus as starch. It may be on this principle that malt extract owes its digestible qualities. But then it contains that peculiar vegetable principle diastase, which is developed during the process of germination, one part of which is sufficient to changs 100 parts of starch into glucose. It is declared by some that this principle diastase possesses the property of augmenting the digestive fluid of the stomach. The Trommer Extract of Malt Co. have prepared a number of combinations, such as Extract of Malt with hops, with Cod liver oil, with hypophosphites, with pepsin, and with preparations of iodine, phosphorous, manganese, iron and quinine. These are exceedingly elegant preparations and the formulæ are given with each so that the prescriber can without much research know exactly the dose and quantity of each drug he prescribes for his patient. We have no personal experience in the use of the Ext. of Malt, but there is abundance of evidence of its usefulness to be met with in the medical literature of the day. Mr. R. L. Gibson, the representative of the Malt Company, is in this City at present and is using every exertion to bring this valuable Extact and its combinations prominently before the public.

CANADA VINE-GROWERS' ASSOCIATON, COOKSVILLE, ONT.

We have received from Mr. James White specimens of three qualities of wine manufactured from grape juice by the above company.

This is a new industry in our country, and we understand that extensive vineyards are under cultivation which supply several varieties of grape capable of making an unlimited quantity of wine. The wine in some respects is superior to that imported, and as a Canadian enterprise is of vast importance to the prosperity of our country. The qualities which we have received are a white claret which is a full, bodied wine, possessing a pleasant flavour and is nutritious and strengthening. We should suppose it would be very beneficial to those recovering from debilitating ailments such as fevers of all kinds, and other

exhausting diseases. We do not believe that wine or spirit of any kind is an essential aliment, bnt we are fully alive to the benefit to be derived by a prudent use of wine in those conditions of the system in which the assimilative powers are at fault from deranged function. We have made trial of the wine given to us by the Canada Association, and we believe it to be a pure juice wine palatable and nutritious; it contains much grape sugar and a sufficient quantity of alcohol to prevent fermentation if carefully kept from exposure. A second kind of this wine is called Madeira and very closely resembles the Madeira produced in the Island. There is also a port wine which is less fiery than the imported port, but very similar to it in flavour. These wines are comparatively cheap, and we think they might with propriety be introduced into use in our hospitals as they can be furnished at a little over one-half the cost of the lower grades of imported wines, being at the same time to our taste, quite equal if not superior to the better qualities of those wines.

Medical Items

Lunatic Asylums in the Province of Quebec.

To the Editor of The Medical and Surgical Journal.

Dear Sir,—Your readers being very interested parties as to the mode of procedure, to obtain orders for the admission of patients into either of the asylums, I beg to inform them, that by virtue of an order in council, passed in the month of November, 1878, at the suggestion of the Hon. Prov. Secretary, Mr. Marchand, under *no circumstances whatever*, can any *non-paying patient* be admitted into either of the asylums without a government order, and this order can *only* be obtained by making an application for it to the Hon. Provincial Secretary, Quebec. Where application is made to him, the applicant, at once, receives all necessary information.

Truly Yours,

HENRY HOWARD, M.D.

Govt. Med. Attendant, Lunatic Asylum, Longue Pointe, P.Q.

Montreal, 26 Berri st., Dec. 24, 1878.

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CANADA

MEDICAL & SURGICAL JOURNAL

FEBRUARY, 1879.

Original Communications.

"LISTERISM."

By Thos. G. Roddick, M.D.,

Professor of Clinical Surgery, McGill University; Attending Surgeon Montreal General Hospital.

(Being a Paper read before the Canada Medical Association, assembled at Hamilton, Ontario, September, 1878.)

By a somewhat singular coincidence, it was exactly twelve months yesterday since the antiseptic system of Lister, or "Listerism," as the Germans have chosen to term it, was first introduced into the practice of the Montreal General Hospital, and if I mistake not (although in this I am open to correction,) into Canada. During the year the method has been carried out in every operation of any magnitude, and the results obtained have been on the whole most gratifying, and in some cases almost unprecedented.

As there are probably some of the members of the Association present who have never seen an operation performed antiseptically, I will, without further prelude, briefly describe the apparatus at present employed by Lister, and then read the notes of a few cases in which the method has been employed.

I will describe briefly the mode of procedure adopted in the wards under my care. A railway accident is brought in, let us say, in which amputation is demanded. The first duty of the house surgeon is to elevate the limb and apply Esmarch's band, as well with a view to arrest the hemorrhage as to dull the

sensibilities of the part, for a tight ligature undoubtedly has an anæsthetic effect in such cases. So convinced am I of this that before proceeding to open a whitlow, I am in the habit invariably of applying a tight elastic ligature to the finger or wrist, as the case may demand, first emptying the part of blood. I presume the explanation is in the interference to the nerve currents. The extremity is then enveloped as far up as the wounds extend in a towel saturated in a 1 to 20 solution of carbolic acid, the object being to imprison, and at the same time to destroy any putrefactive elements that may be lurking about the lacerated tissues. Now preparations are made for the operation. The sponges are wrung dry out of a solution of 1 to 20; the instruments are placed in a solution of 1 to 20, and the part to be operated on is thoroughly cleansed with a solution of the same strength. Carbolic acid has a remarkable penetrating property, blending with oily substances and animal matters, entering the air folicles, and altogether rendering the skin absolutely pure for surgical purposes. A carbolic solution of 1 to 40 is made ready to be used for washing sponges during the operation, for cleansing the hands of the operator and assistants, and for moistening the deeper dressings.

Next in order is the *Spray-producer*—one of the most essential, while it is at the same time the most troublesome item in the whole proceeding. The instrument I show you was recently purchased from Archibald Young, instrument maker of Edinburgh, at a cost of £8 stg. It is the largest size manufactured by him, and is of the make recommended by Mr. Lister. It acts on the principle of Siegle's steam inhaler, the boiler being filled with water, and the bottle with 1 to 20 carbolic solution, giving an antiseptic atmosphere of 1 to 40. The instrument may either be placed on a table and directed on the part, or, better still, held by an assistant, who should be seated. The spray should always if possible be projected towards the light, as it can then be directed with more exactitude.*

Carbolized Cat-gut, one of the antiseptic essentials, should be

* Dr. R. F. Weir, a New-York Surgeon, (who, by the way, has recently written a very able ande xhaustive pamphlet on the "Antiseptic Method,") is the inventor of a spray-producer, which, while it can be strongly recommended for its neat and handy properties, lacks the strength of the British instrument.

at hand. This, which, by-the-way, can generally be obtained ready for use, is prepared after Lister's directions, in the following way: add one measure of water to ten parts by weight of crystalized carbolic acid, mix and add one measure of the mixture to five measures of olive oil in a suitable jar or wide-mouthed bottle; then at once introduce the cat-gut, the hanks being opened up to allow access of the liquid to them; cover and set aside in a cool place. It is found that the small quantity of water present makes all the difference possible in the quality of the ligature, causing the tissue of which the gut is composed to undergo a remarkable physical change, which has never yet been satisfactorily explained. This emulsion, so to speak, seems to deprive it of its peculiar slippery nature, and it is asserted that when properly prepared, a reef-knot tied upon it holds better than one of waxed silk. By the addition of chromic acid to the oily mixture, the "staying" power of the gut is materially increased.

The *Antiseptic Gauze* comes up next for consideration. This, which in the raw state is known as dairy or cheese-cloth, is prepared for surgical purposes as follows: Melt together in a water bath five parts of common resin, and seven parts of solid paraffin, then add one part of crystalized carbolic acid. The cotton-cloth, which is usually a yard wide, is cut into lengths of six yards, and folded to the dimensions of half a yard square. Several such pieces are placed in a dry hot chamber formed by two tin boxes placed one within the other, the interval being occupied by water, which is kept boiling by a couple of the gas stoves so commonly in use now-a-days. After two or three hours the heated gauze is removed and then rapidly replaced layer after layer, and sprinkled with the solution by means of a syringe having a number of minute perforations in its extremity, and supplied with wooden handles to protect the hands of the workman. A weight of about forty pounds in the shape of a lid, is put in the chamber to compress the charged cotton. This, also, should have been previously heated. Generally in the course of two or three hours the liquid will have become equally distributed throughout the gauze, and the material is fit for use. The

cost for manufacture in considerable quantities (say 1000 yards), is about 2½d. per yard. Soiled gauze may be recharged after a thorough washing and soaking in very hot water. That gauze which is to be applied directly to a wound, is first saturated with the 1 to 20 carbolic solution, the reason for this being, that the antiseptic is given off so slowly, and in such an extremely small amount, that dust, &c., falling on it might not be deprived of their septic qualities. The heavy dressings consist of eight layers of gauze, a sheet of impermeable material, as rubber-cloth, Mackintosh, or gutta percha tissue, being interposed between the seventh and last layer. This is to prevent the discharges from making their way too directly through the dressing, the idea being that they shall reach the external air by the longest route. The eighth layer of gauze is intended as a reserve in the event of any openings in the Mackintosh having been overlooked. The gauze, by-the-way, is always used for bandages as well.

To ensure the speedy exit from wounds of all liquid accumulations, resort is usually had to the ordinary caoutchouc *drainage tubing*. This should vary in size and proportion to the quantity of discharge anticipated, and the holes should be large. The outer end, when applied, should be cut flush with the skin, and armed with a twisted wire to prevent its being pushed in by the dressing. The cat-gut drain, so strongly recommended by my friend Mr. Chiene, of Edinburgh, consists of a skein of from eight to sixteen threads, depending on the size and importance of the wound. This form of drain has the great merit of quietly vanishing after its work is done, and is especially suitable for minor operations; although I have no doubt, in the hands of such an able advocate, it is destined to occupy a prominent place in the apparatus of the antiseptic surgeon. *Horse hair*, properly purified by soaking in 1-to-20 carbolic solution, also makes an excellent drain.

The *Protective*, so-called, is composed of thin oil silk, varnished with copal and then coated with a layer of dextrine, which latter allows the oil-silk to become uniformly wetted by the antiseptic solution. This is moistened with the 1 to 40 and applied imme-

diately to the wound in a narrow strip. As its name implies, it protects the wound from the often too irritating action of the carbolic acid contained in the deeper dressings. I never employ it, however, in the first dressings, being, I think, unnecessary at this early stage.

It is a well known fact that the ordinary carbolic solution is often too stimulating when applied to wounds, and retards the healing process in a marked degree. In that case the preparation termed by Mr. Lister, *Salicylic Cream*, can often be substituted in the later dressings. This is made simply by mixing together in a mortar salicylic acid and 1-to-40 carbolic solution until the consistence of thin cream is obtained.

Having now described briefly the more important articles necessary for an antiseptic dressing, I will, with your permision, proceed to give you short reports of a few of the more important cases treated by this method in the wards of the Montreal General Hospital, during the past twelve months.

As the three first cases of the series have been already published in THE CANADA MEDICAL AND SURGICAL JOURNAL, for the months of December, 1877, and February, 1878, it is not my intention to trouble you with extended reports thereof, but merely a brief synopsis for the benefit of those who may not take that periodical, and also, that my paper may be the more complete.

Case I.—Compound Comminuted Fracture of the Bones of Tarsus, involving the Ankle Joint.—Amputation.—The patient, a laborer, 68 years of age, was admitted into the Montreal General Hospital on the 10th September, 1877, a load of earth having fallen on the left foot and caused the injuries above enumerated. I made the attempt to save the foot by the antiseptic method, and although the most extensive death of the soft parts supervened, I succeeded in keeping them perfectly "sweet" and free from inflammatory trouble until October 4th (twenty-four days after the accident), when it was thought advisable to amputate.

The operation, amputation through the ankle, was performed under the spray, and with all the antiseptic precautions.

As the record of the case, kept by my clinical clerk, Mr. (now Dr.) Hutchinson, is here very brief, I will read it:

Oct. 5th.—The stump was dressed to-day antiseptically, and only a small quantity of sero-sanguineous fluid found to be discharged. The patient's temperature is found to be nearly normal, as may be seen by reference to the chart. Pulse weak and compressible. Appetite poor.

6th.—Dressed again to-day,—only a small amount of serum on the draw-sheet and dressing. Condition much as yesterday. The wound is healing in all parts.

7th.—The draw-sheet being slightly stained, the dressing was removed. No odour. No pus. The patient's general condition is decidedly improving. Tongue cleaning rapidly.

10th.—The stump has not been disturbed for the past three days. The edges of the flaps have united so closely that the line can barely be discovered; drainage tubes removed. The sutures were simply wiped away to-day with a sponge. The man's general, and especially his mental condition, has wonderfully improved in the past few days.

13th.—All dressing removed, and the patient is to sit up in the invalid chair this afternoon.

The highest temperature reached after amputation was 99 4-5.

Case II.—Railway Accident demanding Amputation above the Knee-Joint, in a lad of fifteen, whose left leg had been run over by some dozen car wheels. Carden's operation, slightly modified, was performed on the 7th October, 1877, my friend, Dr. Rodger, whose case it was, assisting me. Throughout no pus was noticed, and a remarkable phenomenon occasionally seen by the antiseptic surgeon occurred here, namely, the absorption of a narrow strip of dead tissue noticed for the first three or four days to occupy the edge of the anterior flap.

To quote from my report already published:—When the dressing was removed just one week after the operation, the stump was found to be entirely healed, excepting at the angles where the drainage tubes had been retained. The latter were

removed, and the knots of the cat-gut sutures picked off with the forceps, or simply brushed away with the sponge. The dressing was re-applied as before, with this difference that salicylic cream was substituted for the 1-to-40 solution on the protective and gauze, in order to prevent too great irritation of the tender cicatrix. Dr. Rodger informs me that he removed the antiseptic dressing altogether on the 17th, and applied some red lotion to the angles of the stump, so as to hasten the healing of the two little spots. which had been prevented from closing by the drainage tubes. The boy has since been sitting up every day, and appears in perfect health.

The temperature throughout, taken night and morning, ranged between 98 and 99°.1, and, in fact, I find the latter figure was only reached once (on the fourth day), but as soon as his bowels had been moved by an enema it fell to normal.

CASE III. — *Excision of the Right Elbow for Fibrous Ankylosis, the result of Fracture.**—The patient, a man 24 years of age, was admitted into my wards on the 20th November, 1877. The injured arm was painful and ankylosed in an awkward position. He gave a history of having in the month of June previous fallen from a fence, striking his elbow on a stone, the arm being flexed. Two days after admission (22nd Nov.,) excision was performed antiseptically by the straight incision.—No splint was used, the arm being kept in position by the heavy dressing.

From the report of the case furnished by Mr. Mills, the present able House Surgeon of the Hamilton Hospital, I glean the following—

Nov. 22nd.—Wound dressed antiseptically; looking well. A slight sero-sanguinous discharge. Temperature 99·1° in the morning, 101° in the evening. Pulse 98 in the morning, 104 in the evening. Urine has to be removed by catheter.

27th.—Wound dressed again. Slight serous discharge.—Neither pus nor odour.

29th.—Wound dressed again. Looking well. Temperature

* CANADA MEDICAL AND SURGICAL JOURNAL, Feb. 1878.

ran up in the evening to 101°, without any apparent cause, except that the bowels had not been moved for four days, and he was feeling some discomfort in consequence. I may here remark that in several of our cases of antiseptic surgery, (where the temperature has been very closely watched) sudden elevations have occurred for which no cause could be assigned, except a loaded condition of the bowels, and that this was the cause seems to be established by the fact that it invariably fell to its former range as soon as the bowels were relieved by a purgative or an enema.

Dec. 2nd.—Arm dressed again. Sutures removed. Wound completely healed, except the two small openings from which the drainage tubes were removed.

Thus the wound had entirely closed in ten days after operation, and the patient was discharged with a very useful arm after thirty-nine days residence in hospital.

CASE IV.—*Amputation of the Thigh* in a child of four years for a railway injury, the wheels of a street car having passed obliquely over the foot and leg. I amputated after Carden's method. Antiseptic measures were adopted throughout. Union by first intention occurred without a drop of suppuration or trace of odour. On the fifth day (third dressing), the tubes were removed, and on the ninth day, (5th July) the stump was found to be perfectly healed, and all dressings were removed. The temperature chart, I venture to say, will be found on examination to be almost unique for an amputation of the thigh, following railway injury, as you see it never rose above 99°. The child slept and ate well throughout, and as far as I could learn from the nurse, never referred to the wound as if in pain.

CASE V.—*Excision of the Elbow for bony Ankylosis.*—This was a lad of 18 years who sought advice on the 4th July, 1878, for ankylosis of the elbow, in an awkward position, viz: at an angle much greater than a right angle. He gave a history of having fallen from a height some four years previous, sustaining fracture of the bones comprising the elbow-joint. The

limb was treated in the position of full extension, the consequence being a perfectly straight arm. Partial excision was subsequently performed by Mr. Annandale of Edinburgh, resulting in ankylosis, and the condition of things found on admission.

From the notes of my clinical clerk, Mr. Thomas Gray, I glean the following:—Hand semi-prone—complete loss of motion in elbow-joint, it being in an almost semi-flexed position. Muscles of arm and forearm much wasted. On the outer side of the arm is an oblong cicatrix over the position of the external condyle, and another on the inner side just behind the internal condyle. These correspond to the incisions of Mr. Annandale. An irregular bony mass is felt corresponding to site of head of radius, and external side of humerus. The olecranon is distinct, but its anterior surface seems firmly adherent to the humerus. He complains of a tingling sensation and loss of power in the little and ring fingers, due, no doubt, to pressure of the ulnar nerve between the inner cicatrix and the bone.

As the patient was not in very good health when admitted, having recently suffered from axillary abscess, I deferred operative interference until the 24th July, on which day I proceeded to excise with antiseptic precautions. I employed the straight incision, going directly through the periosteum, which I carefully separated throughout with the blunt "elevator." The ulnar nerve was released without being exposed. About two and a half inches of the ankylosed bone were removed. (I pass the specimen round for your inspection. You will find the bones comprising the joint completely fused together).

I return to Mr. Gray's notes for the following record:

July 25th.—Temperature 98°; pulse steady; not a single bad symptom has appeared. Some difficulty in making water, which he says is always the case when obliged to keep the horizontal position. The arm was dressed to-day, and looks "beautiful." No swelling, no tension. Slight serous discharge, and the edges of the incision are already meeting. In the evening his temperature was 99°.

The report for the two succeeding days is most encouraging, as the temperature chart will itself show. The interesting fact

might be mentioned here, that the ulnar nerve is regaining its proper functions, as the fingers supplied by it are found to have both acquired a large share of their normal sensation and motion.

28*th*.—Temperature normal. Pulse 84. Dressings removed; discharge serous in character and perfectly "sweet." No pus has been seen. The wound is united firmly throughout with the exception of the angles occupied by the drainage tubes, which, by the way, have been very much shortened to-day.

Aug. 1*st*.—The antiseptic dressings and drainage tubes were removed and the part dressed simply with boracic lint and oil silk.

9*th*.—The angles having now entirely healed, passive motion is begun. It will be seen that I employed no splint in this case the heavy antiseptic dressing being sufficient to keep the arm at any angle desired.

I beg to refer you to the temperature chart, which I look upon as a remarkable one, the index never having risen higher than 99°.1, and that for two days only following the operation.

Did time permit, I could give detailed reports of other two cases of compound fracture; of five cases of *Removal of Breast;* five cases of *Removal of Fatty Tumour;* seven cases of *Amputation of Fingers and Toes*, besides innumerable abscesses, which have been treated antiseptically during the past twelve months, in the wards of the Montreal General Hospital, and with the most gratifying results.

Some of my colleagues also have been very successful, and I have no doubt they will, at no distant date, give the profession the benefit of their experience.

So much for the successes; now for the failures, and here the story is soon told: We failed in three major operations only, in maintaining the discharges in an antiseptic condition. These were 1st. A Syme's amputation; 2nd. Removal of a large scirrhus breast; 3rd. Re-amputation of Leg.

The first operation was performed in a man about 40 years of age, on whom a Chopart had been done some months before, leaving a painful ulcer on the face of the stump. On the third day the protective was found to be blackened (a sure sign of putrescence), and the dressing had a decided odour. The temperature had also gone up during the night to 102°; pulse

rapid and pain considerable. The cause of failure was self-evident, and indeed I had anticipated this, in some clinical remarks made after the operation. I had just completed the flaps and was about separating the foot when the spray-producer ceased to work, through some mismanagement. The "guard" was at once applied, but the instrument could not again be made to work, and the operation had to be completed without the spray. Notwithstanding that the wound was thoroughly washed out with carbolic lotion, and every antiseptic precaution taken, the result was what I have stated, some septic germs having, no doubt, crept into the crannies of the wound after the discontinuance of the spray. This case illustrates more than anything I have yet seen or read, the paramount importance of the antiseptic spray, and proves beyond a doubt that the first duty of a surgeon is to protect the delicate tissues exposed by his knife from contamination by those organic germs (call them by what name you please) which float in the air about us, and are undoubtedly the cause of putrefaction. As to the case, I succeeded after some trouble in "sweetening" the stump, and it ultimately turned out to be a very fair result, although the man was two months in hospital, whereas he should have been there only two weeks.

The second operation which proved a failure was a case of simple removal of breast. Everything went well until the fourth day, when odour was distinctly perceptible, and the protective was blackened. The temperature chart showed a rise of nearly three degrees, and the pus was marked in amount. I could not explain it, excepting that the patient, who was very fidgety, had raised the upper edges of the dressing in the endeavor to loosen it, and thus allowed of the ingress of air. I have since discovered, however, that she was in the habit secretly of stuffing a quantity of cotton wool beneath the dressing to prevent the gauze from irritating the skin. Now, I think if germs are able to appreciate the "comforts of a home," they will find them among the delicate, soft, and warm fibres of the ordinary cotton wool. I really think there is nothing for which the antiseptic surgeon should entertain a greater dread than this very material

in its raw state, and yet when properly prepared there are few forms of dressing capable of more universal application.

The third case of failure occurred only the other day in a re-amputation of the leg for painful and ulcerated stump. The case is not one of sufficient interest to call for a full report. Suffice it to say that on the fifth day (third dressing) there were evidences of putrescence. I have yet been unable to find a sufficient cause for the failure, unless it be that a splint which I applied on the second day beneath the heavy dressing, had not been thoroughly cleansed. A large patch of cicatricial tissue situated over the bone has since sloughed, although the case will ultimately do well.

Thus I have endeavoured to lay before you, though, I must confess, in a very imperfect manner, the result of one year's experience of the antiseptic method of Lister. The number of cases is certainly small, but the experience presented should be sufficient to convince the most sceptical of the practical efficacy of the method, and to induce them at least to give it a trial. Our success in the Montreal General Hospital has certainly exceeded our fondest expectations. For the year ending yesterday we can show a clean mortality sheet as far as the purely antiseptic operations are concerned, while traumatic erysipelas and pyæmia have been unknown. Indeed, we may confidently look forward to the time when these surgical plagues will be no longer dreaded, but, like scurvy in our day, will be considered in the light of curiosities.

No one, not even Lister himself, claims that the method is faultless, although he has been unable to make any material improvements in the past five years. Those, besides, who have attempted from time to time to modify his plan of procedure, have, almost without exception, failed. Thus, Thiersch, of Leipsic, the first German follower of Lister, has gone back to carbolic acid, having found salicylic acid a sad failure as a germicide. He declares that, although the technical details of the method may be modified, Lister's postulate—the total exclusion of putrefactive elements from the wound—will never be lost sight of by him.

Nussbaum, of Munich, tried, but without success, every surgical-dressing known, in his endeavour to combat hospital gangrene and pyæmia, with which 80 per cent. of his wounds were attacked; "but," he says, "when we applied to all our patients the newest antiseptic method, now in many respects improved by Lister, and did all operations according to his directions, we experienced one surprise after another; everything went well; not a single case of hospital gangrene occurred, and pyæmia and erysipelas completely disappeared."

The pioneer of "Listerism" on the continent of Europe, Saxtorph, of Copenhagen, says, "he is sure that if he does not carry out the antiseptic treatment to its full extent, it is of no use whatever to apply carbolic acid to a wound, at least as regards the dangers that always accompany putrefaction."

Callender, of St. Bartholomew's, who operates without the spray, has certainly had admirable results, showing a mortality in a series of amputations of only 2.27 per cent.; but Volkmann, of Halle, one of Lister's most faithful followers, is not far behind with a percentage of 2.87, and a large majority of his cases were frightful machinery accidents.

Mr. Bradley, of Manchester, has recently published statistics of a series of operations performed by him after a "modified method," showing a mortality per cent. of 11.42; but one of the followers of Lister in the Royal Infirmary, of Glasgow, has since shown his hand, giving statistics of thirty of the most serious operations in surgery with only one death, or a mortality of 3.33 per cent.

But antiseptic surgeons will not be satisfied hereafter with the bare mortality statistics. They will demand, and with justice too, the range of temperature in the various cases, the average number of days under treatment, and the cost of the dressings. In hospital practice, especially, the length of time required for the cure is a matter of the utmost importance. If, as our reports prove we could have done, cases of amputation of the limbs can be discharged with safety in less than fifteen days, what a saving is made, even though the cost of the dressing far exceed in value any other that might be employed for the same length of time.

A NEW SOUND FOR EXAMINING THE BLADDER IN CASES OF SUSPECTED STONE.

By G. CUTHBERTSON DUNCAN, M.D., L.R.C.S., Edin.

The following description of a new sound was sent to us last October by Dr. Duncan, just before he left Canada for England: it was mislaid and overlooked, but we now publish it with pleasure. We may remark that, with Dr. Duncan, we tried the sound on the dead subject, and the presence of a minute fragment of stone which had been placed in the bladder was readily made out. The trial was quite satisfactory, and we are inclined to believe that the instrument given us by Dr. Duncan is a valuable aid to diagnosis of stone in the bladder, more especially in those cases where the fragments are small, or where symptoms of stone are persistent and failure to ascertain its presence from some cause attends the search.—(ED.)

Description of Sound.—The sound is made of solid steel, similar, in most respects, to the short-beak sound in ordinary use, with the exception of a modification in the handle, which is round, and a little larger than the rest of the sound. Situated at about two inches from the end of this is a circular disc at right angles to the curve of the beak, to indicate in what direction it is pointing and to facilitate its rotary movement both in its introduction through the urethra and while in the bladder. The whole *nickel*-plated, being smooth, bright, and not liable to become discoloured. The beak is blackened by being held in the smoke of an ordinary oil-lamp, and when *perfectly cool* is dipped into a solution of collodion, thinned to a proper consistency with ether and alcohol, which, when dry, forms a black film on the sound capable of being introduced into the bladder without being injured, but if brought in contact with any hard substance it is immediately scratched, and the bright metallic surface *appears*, thus *indicating* the presence of the foreign body.

Advantages Claimed.—This method of preparation does not impair the conducting power of the sound or its sensitiveness in any way, as is the case with Mr. Napier's leaden-pointed instru-

ment; also, the film is much more easily scratched than the lead. The handle, being small and round, is held between the index finger and thumb (the most sensitive part of the hand), thus giving greater facility in its rotary movements, and a greater chance of *detecting* the *slightest* contact with a foreign substance.

A piece of a calculus weighing about five grains was introduced into the bladder, and the sound was introduced and withdrawn several times to shew that the film was in no way injured, it was then made to sweep the floor of the bladder from side to side, and withdrawn, when it shewed evident traces of having come in contact with some hard body.

Hospital Reports.

MEDICAL AND SURGICAL CASES OCCURRING IN THE PRACTICE OF THE MONTREAL GENERAL HOSPITAL.

Tumour situated over the Parotid Gland.—Removal.—By G. E. FENWICK, M.D. Reported by Mr. THOS. GRAY.

A. McL., a large-framed, robust-looking Scotchman, was admitted into the Montreal General Hospital, on the 19th Oct., 1878, suffering from a large, firm, somewhat nodular growth, situated in the left parotid region. The patient states that he is 73 years of age, but he bears his age well. The history he gives is as follows: Ten years ago he had a severe cold, and the glands of his neck swelled. There remained a small, hardly perceptible growth on the side where the tumour is situated, but it never gave him any concern, nor any pain. For the last three months it has grown rapidly, and for several weeks past it has given him great pain, more especially at night.

The tumour is situated on the left side, over the parotid region, the lobule of the left ear being pushed upwards, and somewhat stretched over the growth. It is about the size of a hen's egg; is hard, firm, but quite movable, apparently unattached, and has projecting from its surface several nodules. Although to all appearance free, it has implicated the branches of the *portio dura*; some of the muscles of the left side of the face are paralyzed; he is unable to close the left eye-lid; the

angle of the mouth is slightly drawn down; he can, however, close his mouth, bringing the lips firmly together, but he states that the growth has interfered with mastication. His speech is a little thick, but sensation in the face is perfect throughout. From the fact of the rapid growth of the tumour, from its implicating the facial nerve, and from the tumour being nodular, having a tendency, apparently, to push through its fibrous envelope and infiltrate the parts in the immediate vicinity, it was regarded as of very doubtful character. It was, however, perfectly free and movable, and was distinctly encapsulated. The tumour interfered with the man's rest, as he suffered nightly from neuralgic pains shooting up the side of the face and scalp, and as he insisted on the removal of the growth at all risks, the operation was determined on, the patient being made fully aware of the possible return of the tumour before the end of many weeks.

The patient having been placed under the influence of sulphuric ether, the operation was commenced by a straight incision, made from above downwards, the entire length of the growth, commencing at the anterior part of the lobule, and extending vertically downwards for about 3½ inches. The capsule of the tumour was reached and the soft parts readily reflected. The growth was then carefully dissected from its bed, one portion passing behind the ascending ramus of the jaw. In this dissection the sheath of the vessels was laid bare, but was not implicated. Several vessels were tied, and the main vessel at a little above where the internal maxillary is given off was ligatured. There was not much blood lost, as the vessels were secured and ligatured as the operation proceeded. Every particle of the growth was removed, and after removal the parts did not look as if there were any infiltrating nodules in the tissues. After all clots were removed, the edges of the wound were brought together with fine cat-gut sutures, a piece of drainage tube being allowed to hang out at the lower edge and the wound was dressed with dry boracic lint. The upper edge of the wound united by first intention, but the lower part, which was kept open by the drainage tube, filled up by granula-

tion tissue. There was a continuous discharge of fluid, like saliva from the lower edge of the wound. This, however, diminished, and in the course of ten days the man was able to leave the Hospital. There still continued inability to close the upper lid of the left eye, but the patient stated that he felt more movement in the part than before the operation, and, moreover, that he was better able to chew his food on the left side. Moreover, his speech was not so thick. The man left the Hospital and returned to his home on the twelfth day after the operation.

Dr. A. F. Ritchie, curator of the Museum of McGill University, gives the following report of the microscopical appearance of the tumour :—

The removed gland is surrounded by a well-marked fibrous capsule. The surface is somewhat nodular, but the general shape of the organ is fairly normal. It measures 2 inches by 1½, with a thickness of about an inch. On section it presents a mottled appearance, the lobules being separated by dark trebeculæ, which in some places are thin and sharply defined ; in others, shade off into the surrounding tissue. A number of reddish patches are seen pretty uniformly distributed over the surface of the section. They vary in size from about ¼ inch in diameter to mere points, and on microscopic examination prove to be carcinomatous nodules, having well marked loculi of rather scanty fibrous tissue, filled with large cells, with well defined nuclei and nucleoli. The cancerous growth infiltrates both the secreting part of the gland and the septa, which contains in addition an excess of fibrous tissue. The dark colour mentioned above is due to a large amount of dark brown granular pigment contained pretty uniformly in the substance of the cells and in the intercellulous tissues of the affected part.

Note.—We have heard quite recently from this patient. He has much improved in health. No return of the growth has occurred, nor are there any enlarged glands in the neighbourhood. The result is so far satisfactory.—Ed.

Case of Diphtheria.—Sudden Death on the 13th Day.—Fatty Degeneration of the Heart and Cardiac Thombus.—Under the care of Dr. Ross. Reported by Mr. IMRIE.

E. A., æt. 11.—Is one of several children living in a tenement above a room where a child died of diphtheria about two months ago. She was admitted into the Montreal General Hospital, under care of Dr. Ross, on the 16th January, 1879, having been sick with sore throat and severe feverish symptoms for three days. The whole entrance of the throat was seen to be dusky and much congested. Tonsils swollen and covered with a pretty thick greyish-white membrane, which also extended freely upon the pillars of the fauces and the surfaces of the uvula. Breath very offensive; neck thick-looking and glands moderately enlarged; temp., 104°; pulse, 120; no albumen in the urine. Two days later (18th January) we find that there has been very little, if any, extension of the membrane beyond the parts already mentioned. Swelling of glands persists; also great fœtor of breath, and commencing acrid discharge from the nose. Was somewhat delirious the past night, and the pulse is quick (140); urine contains a trace of albumen.

January 20th.—Temperature has not been above 101°; no more delirium; urine moderately albuminous—25 ounces in 24 hours; membrane coming away freely from the throat; no extension; fetid discharge from nostrils considerable; glands still swollen and tender.

21*st.*— Patient, the note says, seems "much brighter."

22*nd.*—There has been slight epistaxis; improvement continues; throat free from membrane, but raw and irritable; glands less swollen, and not tender; albumen less; temp., 99°; pulse, 105.

24*th.*—Throat appears to be healing. There is a slight regurgitation of fluids through the left nostril, and the voice has a somewhat nasal character. Temperature normal.

25*th.*—Two p.m.—Not so well; is irritable and restless; complains of pain and soreness in the back and legs. The skin of the legs, especially the fronts of the thighs, is markedly

hyperæsthetic. Throat and glands much improved, but patient is somewhat deaf in both ears. Slight regurgitation, and the nasal voice persists. The urine has been very scanty, only two ounces having been passed in the last 24 hours; contains small amount of albumen. Temp., 98°; pulse, 68.

From this time she continued rather fretful and complaining until 5:30 p.m., when she was raised by the nurse upon the bed-pan, as she desired to have her bowels moved. She had been then sitting up but a few moments when she gave a long sigh, saying "Oh dear!" and, falling back, expired instantly.

At the autopsy, the following conditions were found:—The larynx and trachea were entirely free from any exudation. The heart was moderately contracted. Its valves were healthy. The muscular substance appeared of good colour, not pale or streaky-looking, but under the microscope is seen to be in a state of *advanced fatty degeneration.* The right auricle contained a large white, pretty firm clot, which nearly filled its entire chamber and extended into the corresponding ventricle. It did not pass into the pulmonary artery. Part of this, at any rate (if not the whole), was certainly formed before death. The kidneys were moderately congested.

Remarks by Dr. Ross.—Sudden death in severe cases of diphtheria is not altogether unexpected. It also occasionally occurs during the course of a diphtheritic paralysis. But it is not often that sudden death supervenes whilst the disease itself, never having been of a severe type, seems to have given way, and convalescence be about to begin. The foregoing case, however, well illustrates its possible occurrence. In all these cases, paralysis of the heart, through the pneumogastric, no doubt plays the most important part; but, doubtless, fatty degeneration of the heart muscle is a very common, if not constant, forerunner of the paralytic event. On this point Oertel says:—"When the disease lasts long and is very intense, and especially in cases in which death is caused suddenly by paralysis of the heart, the muscle appears soft, pale, friable, broken by extravasations of blood, and on microscopical examination most

of its fibres are found in an advanced stage of fatty degeneration." Now, in this case, we found at the autopsy the advanced fatty degeneration—indeed, hardly a singular muscular fibre could be found which was not largely converted into oil globules. But it differs from most others in the following respects:—Our patient died on the thirteenth day of the disease, and therefore it could not be said to have lasted long. The attack had not been intense, although it had been moderately severe. There was no decided paralysis, although we had observed a somewhat paretic condition of the velum palati. So that, although fully aware of the occurrence of sudden death and fatty heart under the condition of an intense and prolonged attack, especially if septic symptoms have been marked, or in the debilitated systemic condition indicated by the existence of some kind of paralytic affection, yet I was not prepared to meet with instantaneous death in this little girl under the apparently favorable circumstances which I have related. We learn from the observations of this case that fatty heart may exceptionally be fully developed even after a short duration only of moderately severe diphtheria—that it will betray its presence by no symptoms, and may thus assist in causing death just when convalescence seems about to begin. I say "assist in causing," because I do not think the fatal event is to be entirely attributed to the muscular degeneration. The record of the autopsy shows that there was found in the right chambers of the heart a large white fibrinous clot. Now, we should not have expected to find any such thing in the heart of a person dying from sudden cessation of the heart's action. Dr. Robinson Beverly, writing in the *Lancet*, 2nd November, 1872, has pointed out that the formation of heart clots (cardiac thrombosis) is to be recognized as a possible source of great danger in a certain number of cases of diphtheria—even in those apparently progressing very favorably. "Death," he says, "may occur either suddenly (immediately after the formation of the coagulum) or after the lapse of a period of anxiety and anguish, more or less prolonged." In this case death must have occurred immediately after the formation of the thrombosis.

Caseous Degeneration of a Lung with Rapid Softening.—Death after Hæmoptysis.—Under the care of Dr. Ross. Reported by Mr. W. SUTHERLAND.

G. R., æt. 26, a negro, was admitted into the General Hospital, under Dr. Wilkins, on the 22nd of August, 1878, complaining of cough, weakness and feverishness.

The only account of tubercular disease in his family is the death of one sister at 26 from ordinary pulmonary consumption. His father and mother are both alive and well.

He has always been a strong and robust man until the commencement of the present year, since when he has not been feeling so strong and able to work as previously. He has also been subject to coughs, but denies having had any persistent cough until quite lately. About three weeks prior to admission he got a severe wetting, and since that time has been feeling very ill. He soon began to cough, suffered from pains in his sides, felt feverish, and lost appetite and strength. No positive symptoms indicative of an attack of acute pneumonia of ordinary type can be found. He did not lay up, but attended as an outpatient for two weeks before coming into the wards.

During the month of September he had a persistently high temperature in spite of the administration of quinine; coughed a great deal, with copious heavy perspiration; rapidly lost flesh and strength.

On the 1st of October he was transferred to the care of Dr. Ross, and the following notes were then made of the physical signs:—

Soft parts of chest much emaciated and clavicles prominent, especially the left. Expansion very deficient on the left side. Dullness over the whole of the left lung; the note is very hard and toneless behind, particularly at the lower part, and the sense of resistance is very great—in front it has also a somewhat tubular character. A good percussion sound upon the right side. On auscultation, in front of left side, amphoric breathing, gurgling, and pectoriloquy—behind, a weak, faintly-blowing breath sound and moist râles. On the right side rough breathing, with bubbling râles, is found beneath the clavicle;

elsewhere, vesicular murmur is unaltered. Vocal fremitus much increased on left side.

These physical signs persisted till the end without special change, except the development of a very distinct cracked pot percussion sound beneath the left clavicle.

The temperature chart shows continuous fluctuations of body heat, fluctuating between 100° F. and 104° F. There was a daily expectoration of sometimes as much as a pint of heavy purulent and nummular sputa. The pulse continued very rapid, and progressively smaller and weaker. Emaciation and prostration quickly advanced. Ultimately, on the 19th October, he was taken with hæmoptysis and died on the following morning, without, however, having spat any very large quantity of blood.

Autopsy.—Left Lung—Pleura thickened; covered also in places with flakes of recent lymph. Entire apex occupied by a large cavity, which contains clots and dirty reddish-yellow pus; numerous trabeculæ cross it. The lower and outer portion is in a condition of rough, shaggy-looking ulceration. No small aneurisms are seen. The rest of the lung is firm, solid, and, with the exception of a small margin at the lower part—airless. On section, the tissue presents a uniform opaque white colour, looking as if the whole organ were in state of caseous degeneration. The section is perfectly dry, and here and there a few gelatinous-looking strands of tissue are seen. Right Lung—Full in volume; crepitant, except part at the apex and posterior part of the middle lobes. Apex contains a small irregular cavity surmounted by infiltrated gelatinous-looking tissue. Lower lobe crepitant, contains a few caseous masses, and here and there are firm nodular bodies like miliary tubercles. The bronchi contain small clots of blood. Bronchial Glands.—Enlarged, tumid, moderately pigmented, not caseous, and contain no tubercles.

No tubercular disease existed elsewhere, and the other organs presented nothing worthy of note.

Correspondence.

To the Editor of the CANADA MEDICAL AND SURGICAL JOURNAL:

EDINBURGH, January 14, 1879.

SIR,—A few notes from this, the greatest seat, perhaps, in all the United Kingdom of medical teaching, will prove interesting, I have no doubt, to many of your numerous readers. During the last five or six years the changes in the teaching staff of the medical faculty of this university have been very numerous. After the loss of such men as Bennett, Christison, Lister, Laycock, &c., many false prophets arose, who would fain have placarded the walls of their Alma Mater with "Ichabod! Ichabod!" Happily, however, the state of matters has turned out quite differently, and it is universally acknowledged that the teaching was never so thorough and efficient as it is this winter. The late returns of the matriculation rolls show an attendance of 1293 medical students. Of this number 565 are from Scotland, 445 from England, 22 from Ireland, 75 from India, 149 from different British colonies, and 34 from foreign countries. The majority of the colonial students are from the Cape and Australia. There are also about 150 students who attend exclusively the extra-mural lectures. Owing to the small size of some of the class rooms, a few of the lecturers have been compelled to divide their classes and lecture twice daily. This difficulty will, however, be overcome when the buildings at present under construction for the medical department of the university will be completed. They are situated in close proximity to the new infirmary buildings, and already $1,000,000 has been subscribed (including the government grant of £80,000) towards the building fund.

Prof. Fraser has instituted, this winter, a practical class in Materia Medica. It is very ably conducted, bnt, owing to the restrictions of the late act, experiments on animals are not carried out. That some misguided people are still clamoring for more repressive measures against experiments on animals, the following advertisement, which is copied from to-day's *Scotsman*, shows:—

"Anti-vivisection Prayer Meeting this Day, 1:30 o'clock, 5 St. Andrew's Square."

The following case of a rather rare disease of the spinal cord is worthy of mention, principally on account of the benefit to be derived from judicious treatment, and from the light it throws on allied spinal affections, which are, as yet, but little understood :—

The case, one of acute palio-myelitis, or the so-called "infantile" paralysis of adults, was made the subject of a clinical lecture by Prof. Grainger Stewart, the distinguished occupant of the chair of Practice of Medicine. The patient, who is 18 years of age, and a gardener, has been under observation since August. His social and family history are good. He never had any previous illness, nor did he ever meet with any accident. His illness began suddenly during the last week of July. The symptoms during the first week resembled those of an acute gastric catarrh. On the fifth day of his illness he noticed that all his extremities were weak ; on the seventh day his right arm and leg were completely paralyzed, the left arm and leg partially so. The following was his condition during the first week of November :—

Nervous System.—Sensibility to touch ; pain and heat normal. Muscular sense is unimpaired. Sight, hearing, taste and smell normal. The organic motor functions of swallowing, micturition and defæcation are not interfered with. The bowels are slightly costive, but this is owing to a loss of power in the abdominal muscles. The respiratory acts, although quickened, are normal in rhythm. There is scarcely any lateral expansion of the chest during inspiration ; when he was admitted there was none whatever. Forced expiration is a very difficult task. Both the skin and tendon reflex functions are entirely abolished. The arms have recovered power to a great extent, but there is only the slightest improvement in the motion of the lower extremities. The arms respond to the faradic current, but there is no response to this form of current in the lower extremities. There is no exaggerated reaction to the continuous current, showing that the "reaction of degeneration is not present."

There has been a great and rapid wasting of the muscles in this case—more than could be accounted for by disease. There

was a considerable elevation of temperature at first. Shortly after his admission into the infirmary, he nearly succumbed to an attack of acute bronchitis—he was unable to expel the profuse secretion which collected in his tubes, owing to paralysis of his intercostals. At present (January 6th) this patient is steadily improving; the upper extremities have wholly regained their power, and the improvement in the feet and legs is very considerable, but as yet he is not able to walk unassisted.

The distinguishing features of this disease are:—The rapid occurrence of paresis, passing into palsy of either whole, or groups of muscles, and quickly followed by the rapid wasting of the muscles involved. There is loss of reflex action and faradic excitability, but no loss of sensation.

Its pathology is the same as infantile paralysis. It consists in a degeneration of the cells of the anterior horns of grey matter. It is not a settled point whether the change consists in a primary degeneration of the cells, or whether they are injured and pressed upon by the inflammatory products arising from an affection of the interstitial tissues of the anterior horns of grey matter. The latter is, however, the view that is generally adopted.

This disease throws light on the following diseases of the cord: I. Paralysis of infants. II. Spinal paralysis of adults. III. Lauder's acute ascending paralysis. IV. Amyotrophic lateral spinal sclerosis.

The treatment pursued in this case was, in the early stages, large doses of ergot, followed by iodide of potassium and the continuous current.

Prof. Grainger Stewart has had lately under his care, in the infirmary, a case of what Trousseau designated as epileptiform neuralgia. The patient, a man 70 years of age, has been troubled with it for 18 years, and during that time he tried a great number of different remedies, but nothing, except very large hypodermic injections of morphia, had the least effect in mitigating the severity of the attacks, latterly even the morphia failed to relieve him. The pain, which came on in paroxysms, lasting from half a minute to one and a-half or two minutes, and

was of the most agonizing character, started in the region of distribution of the labial branches of the superior maxillary nerve. The act of chewing invariably brought on a paroxysm; on this account he was compelled to feed himself through a tube. The slightest friction over the area supplied by the superior maxillary nerve excited an attack. As soon as the pain started, the muscles of the right side of the face began to twitch. As a rule, he had several attacks daily; the longest interval during the 18 years that he was free from them was six months. After his admission into hospital various remedies were tried, but not the slightest benefit was noticeable from any or all of them.

The nerve, as it emerges from the infra-orbital foramen, was cut down upon and stretched. This procedure was attended, after 12 hours, by almost complete relief; but the pain recurring shortly afterwards, the operation was attempted to be repeated, but owing to the nerve being up in the newly-formed cicatricial tissue, it could not be stretched, but was cut through. This only gave partial relief for a short time. The labial branch of the nerve was stretched, and since this has been done (seven weeks ago) he has been completely free from pain. He is able now to chew his food, and bear his face to be roughly rubbed.

Although the relief which has followed this last method of treatment is complete, it remains to be seen whether it will be permanent or not.

The following case, although it presents nothing unusual in its pathology or treatment, is of very great interest from its frequency, and is a good example of how a patient with irretrievably damaged organs can be made to enjoy a comparatively comfortable existence, and have his life greatly prolonged. The patient, a man 60 years of age, was admitted into the hospital a year ago under Prof. McLagan's care. Last May he was transferred to Prof. Stewart's wards, and his condition then was as follows:—

He was suffering from great dyspnœa, œdema of the lower extremities, scrotum, and integument of the lower part of the back and abdomen. He had bronchitis with œdema of the

lungs, and double hydrothorax. His heart was dilated and feeble, his mitral valve was incompetent, and the orifice of his aorta was obstructed. He had a degree of cirrhosis of the kidneys, and his urinary tubules were the seat of acute catarrh.

He was drowsy from uræmic poisoning. The pulse was hard and tense. Sixty ounces of serum were withdrawn from the right pleural cavity, although the dullness did not reach up to the inferior angle of the scapula. Up to the present he has been tapped on ten different occasions—eight times from the right and twice from the left pleural cavity; 700 ounces in all having been withdrawn.

He was given a pill containing digitalis, squills and carbonate of ammonia.

At present the patient enjoys a fair degree of comfort, the dropsy of the lower extremities having almost completely disappeared. Prof. Stewart says he has learnt the three following lessons from this case:—I. A bolder use of the aspirator in cardiac dropsy. The fluid should be allowed, however, to drain away very slowly, and the cavity should not be completely emptied. II. A very large quantity of fluid may be present in the pleural cavity without giving rise to extensive dullness. This is explained by the constant and long-continued pressure of the fluid, causing exhaustion of the diaphragm. III. A more thorough appreciation of the great value of digitalis as a cardiac tonic, and of digitalis with squills as diuretics.

The anæmia, which is an important factor in the causation of the dropsy, in those cases is more certainly relieved by the use of the muriated tinct. than any of the other iron preparations, but often it disagrees. Dr. G. Stewart says that he has found that if the chloride of ammonium is combined with the iron tinct., the result is better, and the former prevents the irritant action of the iron.

Can acute lobar pneumonia be aborted? This question, which is generally answered in the negative, is one of great moment, and is one which Dr. Geo. Balfour considers can be answered affirmatively. For some years he has given chloroform in cases of pneumonia, and from a close observation of its

action he believes that it has a great influence in preventing hepatization of the lung structure, or, if this stage of the disease has set in, in preventing the spread of the consolidation. Until the pathology of pneumonia is better understood, it will not be easy to give an explanation of this supposed action of chloroform. There are good reasons for believing that the term acute lobar pneumonia may include more than one distinct disease, for recent observations tend to show that there is really a specific fever, having for its local lesion a croupal exudation into the air cells.

Balfour, however, denies the existence of a true specific pneumonia. When blood-letting was so frequent in the treatment of pneumonia, many cases were recorded where the disease was seemingly cut short. No doubt many of those so-called cures were instances of the natural resolution of an embolic pneumonia; for it is well known that the latter form of the disease runs a very short course. It seems superfluous to add that Dr. Balfour, who has a very extensive acquaintance with embolic pneumonia, would not include it in those cases treated by chloroform.

Dr. Balfour gives the chloroform internally, and in small doses, as it is given in Germany.

That chloroform possesses a wonderful influence in regulating and controlling the circulation, is well seen when it is given to patients almost moribund from heart disease or acute peritonitis. Dr. Balfour speaks highly also of its use in angina pectoris: it is preferable here to morphia, on account of the quickness of its action, and to nitrite of amyl because it is not followed by any unpleasant after effects. It is seldom that patients will take amyl a second time, on account of the unpleasant fullness of the head that it produces.

The following is a well marked case of acute miliary tuberculosis in an adult.

A female domestic servant, aged 21, was admitted into the infirmary, on the 7th January 1879, under Dr. Claud Muirhead's care. Five days before admission she was noticed to be fretful and altered in character. She complained of headache.

The family history was not obtained. Her state on admission

was as follows:—The temperature was 101°, pulse 70, bowels constipated, answers to questions are incoherent. She lay in a state of coma vigil during the first night. On the following day the pulse was fallen to 60; the temperature in the morning was 100°, in the evening 100.5°. The pain in the head, which previously was confined to one side, had now extended all over the vertex, and was of a very severe character; the pupils sluggish. On the 9th, pulse 60, temperature 100°; passed only 20 oz. of urine during the last 24 hours. During the next few days the temperature varied from 98° to 100°, the pulse from 50 to 70. She has been either delirious or in a semi-comatose state. On the 15th a double divergent squint was noticed; passed a very delirious night. On the morning of the 16th temperature 100°. pulse 82, urine 10 oz. Died on the evening of the 16th.

Post-Mortem.—Brain—The dura mater was not adherent to the bone. The vessels of the vertex very full. The convolutions greatly flattened. The lateral ventricles only contained three pints of serum. Pons and medulla felt hard. The membranes in the neighborhood of the circle of Willis thickened and milky. The small vessels here and along both Sylvian fissures were covered with small miliary gelatinous tubercles. The liver, spleen and kidneys were also dotted both internally and externally with bodies of the same size and consistence. The same was applied to the lungs, but, in addition, there was in the apex of the left lung a caseous mass, one-quarter of an inch in diameter, which was undergoing liquefaction in its centre. The origin of the infection here was either this mass in the lungs, or an enlarged and pigmented caseous bronchial gland which was also present. The morning previous to death, one-third of a grain of pilocarpine was injected subcutaneously; this produced great salivation and sweating. The cause of the small quantity of fluid found in the ventricles was, no doubt, owing to the profuse diaphoresis induced by the pilocarpine. In proof of this statement we have the flattened condition of the ventricles, which shows that at one time there was a considerable pressure exerted on them. In the case of a child, seen by Dr. Balfour

where there was deep coma in the last stage of tuberculous meningitis, the injection of pilocarpine was quickly followed by the disappearance of the coma, but it soon returned. The most remarkable feature in connection with this case of miliary tuberculosis is its extremely rapid course. She died within three weeks (probably 17 days) of the first appearance of any symptoms. J. S.

Reviews and Notices of Books.

A Practical Treatise on the Medical and Surgical uses of Electricity, &c., &c. By GEO. M. BEARD, A.M., M.D., and A. D. ROCKWELL, A.M., M.D. — Second edition, revised and enlarged, with two hundred illustrations, 8vo. pp. 794. New York, WILLIAM WOOD & Co., 27 Great Jones Street, 1878.

The first edition of this work appeared in 1871, and was very generally approved by the profession, so much so, indeed, that it was translated into German by Dr. Vâter of Prague, a gentleman who has devoted much of his time to the subject of general electrilization.

Faradization is a general constitutional tonic, and is of benefit in a number of affections, as a therapeutic agent of great value, it has assumed a position of importance that can hardly be estimated. It is essential to the successful use of electricity as a therapeutic agent, that the practitioner should be familiar with its physical relations. It is in this knowledge that we notice the difference which results in the practical application of electricity in disease, by the blundering charlatan and the scientific physician; and we must regard the publication of this the second edition of this work as a matter of congratulation to the reading professional public, as its pages will be found to contain, as the author's term it, a "thoroughly sifted experience" of their own, from the time they entered on this specialty to the present period, as also a full and exhaustive *resumé* of all that has appeared from the pen of other authorities.

The explanation of the chemistry of the batteries is full in detail, and will be found in accordance with the most recent chemical knowledge of the subject. To Ohm's law is assigned a special chapter, and it is made clear in all its practical relations. Electro-physics is treated of, and the most recent facts are given in a clear and compact style.

The chapter on Electro-physiology has received large additions, which includes a report of a number of experiments made by the authors during the past three years. The relation of electro-physiology to electro-therapeutics is prominently dealt with. Since the publication of the first edition of this work the method of central galvanization has been reduced to a system, and is here fully described and illustrated, and its advantages over local galvanization fully discussed. The various methods of using electricity are also described, as local Faradization, local galvanisation, electrolysis, and the uses of electricity in surgery as well as the galvanic cautery, these are all described seriatim. There is a chapter on apparatus, and the most recent improvements are given. The superiority of the continuous over the broken, or separate coil Faradiac machines, is likewise discussed. In the application of electricity by the surgeon the method of applying the galvanic cautery, and ordinary electrolysis is described, and the results from a very large experience in this department are given, so that we may here learn what can be done, and what cannot be done by electricity in surgical disease. In the clinical descriptions, the successes and failures are fairly represented.

The work has been greatly enlarged, but in this enlargement new matter is given, material which embraces a larger practical experience of the uses of electricity in disease. The work is illustrated throughout with 198 engravings on wood, and to those who desire to employ this valuable therapeutic agent in the treatment of disease, we can alone observe that this work will be found indispensable.

On Loss of Weight, Blood-spitting, and Lung Disease.—By HORACE DOBELL, M.D., &c., &c., Consulting Physician to the Royal Hospital for Diseases of the Chest, &c., &c. London: J. & A. CHURCHILL, 1878. 8vo. pp. 275.

Pulmonary Consumption being so frightfully common-place a disease in nearly all temperate climates, all matters connected with the elucidation of its causation and pathology are of the very highest practical importance to every zealous physician. How anxious every patient is about what is to follow when he has had an attack of hæmoptysis. The public know—it is notorious—that this often seems to be the precurser of permanent organic changes in the lungs. How eagerly, therefore, the subject of it seeks the counsel of his physician for the prevention of the threatened evil, or, better still, the consoling experience that he has it not to dread. The relationship of hæmoptysis to lung disease has long been a debated point in the pathogenesis of phthisis. Its exact position in this respect is yet by no means settled. Every attempt to assist in the solution of these problems is to be gratefully accepted by the profession. In this work Dr. Dobell has offered to us a large amount of material of much interest and instruction with reference to the relations between loss of body-weight and blood-spitting to co-existent or subsequent pulmonary disease. Much of the value of the book is derived from the large numbers of original observations—frequently accompanied by carefully-tabulated statements, brought together and compared specially with the view of throwing light upon the matters under discussion. All the more recent views of the principal writers on Consumption are also passed in review, and looked at *pro* and *con*, both from their own stand-point and also in the light of the author's own observations. We have much pleasure in bringing to the notice of our readers this further contribution of this well-known writer to the clinical study of Consumption. It will be found full of interest, and a good guide and assistant in forming opinions upon the important points set forth in its title.

Diseases of the Bladder and Urethra in Women.—By ALEX. C. SKENE, M.D., Professor of the Diseases of Women in the Long Island College Hospital, &c., &c. 8vo. pp. 374. New York, WILLIAM WOOD & Co., 27 Great Jones Street.

This is a collection of eight lectures which were prepared orignally for the class of the Long Island College, and they will be found to embrace many of the diseases and functional derangements of the bladder and urethra, which are not to be found in any systematic work in the English language. This work supplies a deficiency which has been felt by the practitioner. These maladies may at first appear of no moment, but experience, however, will prove that diseases of the bladder are tedious and perplexing, full of misery to the sufferer, and demanding at the hands of the practitioner a large share of patience and perseverance. In the opening lecture the author gives a general outline of the anatomy of the bladder and urethra, functions of the bladder, its development, and malformations of the urethra and of the bladder. In this part of the lecture are discussed the probable causes of the congenital malformations which are sometimes met with. In the second lecture the author discusses functional diseases of the bladder, irritable bladder due to abnormal urine, and functional derangements due to disease in other pelvic organs; the same, from anomalies in position and form of the bladder, and extroversion through the urethra. The third lecture is upon organic disease of the bladder, the aids to diagnoses in the examination of the urine, and exploration of the bladder itself. Hyperæmia and hæmorrhage from the bladder.

Cystitis acute, sub-acute, chronic, catarrhal, croupous, diphtheritic and gonorrhœal, form the subjects discussed in the fourth lecture. The treatment of these affections is given in the next lecture, and in the sixth lecture, the author discusses tubercular and malignant affections of the bladder, foreign bodies in the bladder, also hypertrophy of the viscus.

The remaining two lectures are devoted to affections of the female urethra. There is an appendix to the first lecture, in

which is related a case of extroversion of the bladder by Dr. Daniel Ayres, which was successfully closed by two flaps taken from the abdominal parieties above. It appears to have been a characteristic case, but one greatly benfited by the operative measure adopted. This is a most useful manual, and treats of affections which are not discussed in works devoted to the consideration of diseases of females. We recommend it to our readers as a good and reliable guide in the treatment of diseases of the bladder and urethra in women. The type is large, well impressed, on the best of paper, and it is illustrated throughout with most artistic wood engravings.

A Manual of Physical Diagnosis.—By FRANCIS DELAFIELD, M.D., and CHARLES F. STILLMAN, M.D. 4to. pp. 30, interleaved. New York: WILLIAM WOOD & Co., 27 Great Jones Street, 1878.

In the preface the author states that "this manual is intended for the use of those who have to teach and to learn the art of physical diagnosis," and it is supplied with blank leaves, so that the student or practitioner may take it into the wards of an hospital and use it as a note-book. We do not think it could with advantage be so used, but we have no doubt that the work will be found to supply a place which has until now remained unfilled. The work commences by a description of the methods of examination, showing how they should be conducted. There is first described the sounds elicited on percussion in a normal condition of the chest and abdomen. The different regions being indicated, we next have detailed the sounds elicited in conditions of disease. Auscultation in health and disease, are next given, and then there is described the differences in quality of the voice in variable conditions. The physical signs as indicative of special forms of disease of the lungs are then given. The author then passes on in the same systematic manner to the elucidation of the physical signs met with in the examination of the heart, terminating his description with those indicative of aneurism of the arch of the aorta. The author in the preparation of this work, acknowledges his indebtedness

to the works of Walshe, Flint, and Sibson. There are two original drawings by Dr. Stillman, one of the anterior regions of the chest and abdomen, the other of the posterior regions; these are specially intended to indicate the relative position of the various organs, and are of great practical value. The whole is most handsomely got up, and the plates which adorn the book, are finished in the highest style of art. One is a dissected plate and indicates the position of the thoracic and abdominal viscera with truthfulness and accuracy. We think this manual will be found of service, more so, perhaps, to a man who has already become familiar with physical exploration than to the beginner. To the teacher we should think it would be of especial use.

A Practical Manual of the Diseases of Children, with a formulary. — By EDWARD ELLIS, M.D., late Senior Physician to the Victoria Hospital for Sick Children, &c, &c. Third Edition, 8vo. pp. 213. New York: William Wood & Co., 27 Great Jones Street, 1879.

This is the second of the series published by the Messrs Wood of New York in their Library of Standard Medical Authors, and is issued from the press in the same style of excellence as the first volume formerly noticed.

This is a very excellent manual on the subject of Children's Diseases, and consists of ten chapters. The principal worth of this manual is the abundant formulary, the general therapeutic hints and a description of suitable diet, which is more important in the treatment of diseases of children than medication. The last chapter in this work is devoted to this subject. This chapter is brief but of very great importance practically. This being the third edition much fresh material will be found added in each section. The general description of diseases is quite up to the time and the work will be found of use to both practitioner and student; it is a fitting adjunct to the series being published by the enterprising house of William Wood and Company, in their Library of Standard Medical Works. We trust the worthy attempt of the publishers to give to the profession a series of useful books, at a price far below their value, will be fully appreciated and liberally supported.

Index Medicus, a monthly classified record of the current Medical Literature of the world, compiled under the supervision of Drs. JOHN S. BILLINGS, Surgeon, U.S.A., and ROBERT FLETCHER, M.R.C.S., Eng. Vol. 1. Jan. 31, 1879. Imp. 8vo. pp. 72. New York: F. SEYPOLDT, 37 Park Row.

It is known to most of our readers that some years ago a library largely composed of periodical literature was started in connection with the Surgeon-General's department of the United States of America, at Washington, this was principally under the charge of Dr. John S. Billings. This collection has assumed large proportions, and contains at the present day many thousand volumes. This, of itself, is a most valuable collection as in it are to be found Medical periodicals of all nations and in all languages. With a view of rendering this collection of use to the general professional public, the authors of the *Index Medicus* have determined to publish a monthly record of the titles of all the papers that appear in the periodicals which are received during the preceding month.

We have received the first number of the *Index* published under the Editorial management of Dr. J. S. Billings of the Surgeon General's Department, U.S.A., and Dr. Robt. Fletcher. It bears evidence of a vast amount of labour and research. It is proposed to issue a monthly index to contain the titles of all papers that have appeared in periodicals or transactions of societies, new remedies and the latest information on therapeutics. This will be of especial benefit to authors, as in these pages they will be able to discover the latest views of writers and to ascertain whether the views which they themselves hold have been anticipated by others. Teachers in Medicine or Surgery will be able to keep, *au courant*, with the advance of their art, by noting what is being done in all countries; and editors of periodicals will with facility be able to refer to the articles to be found in other periodicals, besides the incalculable benefit to be derived by a full publicity of the papers to be found in their own pages.

Extracts from British and Foreign Journals.

Unless otherwise stated the translations are made specially for this Journal.

Chloral Hydrate.—(Note on a method of administering Chloral Hydrate, by E. L. DIXON, M.D., M.R.C.P.)—On the 27th July I was sent for some distance into the country to see a farmer, who was said to be dying. When I arrived I found that he had been suffering for the past twelve hours from a series of violent epileptic paroxysms, and that for three hours he had not been sensible. In my presence he had two attacks with an interval of twenty minutes, in which he never became quite conscious, but continued to toss about violently. He had passed urine involuntarily during a paroxysm; the pulse was quick and weak; the bowels had been well acted upon, and the temperature was high, 103°·2, as is the case in the status epilepticus. He had been, it was said, fairly temperate of late, but he had been thoroughly wet through two days before this attack. He was a robust man of twenty-eight years of age. Epilepsy had first shown itself about two years before, from exposure to the sun during hay-making, it was said, and the attacks had been repeated every month till January last, when I was called in to see him on account of his having had several in one day. I then found he had been indulging freely in alcoholic liquors; the urine was free from albumen and of fair sp. gr., but nothing else was made out. I recommended strict teetotalism, and that he should take the bromide potassium regularly for some time. After this he had no return until about five weeks ago, when he had two attacks, and had then remained free till I was again sent for.

On this occasion, in consequence of the increasing rapidity of the recurrence of the fits, I became alarmed as to the result, for it was evident that unless they ceased he would become comatose and die. The principal indication seemed to me to diminish if possible the excitability of the reflex nervous centres. I did not venture, nor did I think it desirable, to bleed him. I had no chloroform with me, but I had a small bottle of the

liquor chloral hydrat. (corbyn), of which each minim equals a grain of salt. I tried to make him swallow a draught containing a drachm, diluted with water, but he pushed it away forcibly. I had no syringe with which to administer it as an enema, nor even hypodermically. With the assistance of a strong man, who held his head and opened the jaws with a piece of wood, I emptied a teaspoonful of the concentrated solution into the back of his mouth. He started violently, but did not eject any of the medicine. After a time I noticed that the restlessness diminished; still he did not sleep. About half-an-hour after the first dose I administered a second of about forty minims in a similar manner, when he gradually sank into a profound sleep, which lasted five or six hours, and there was no return of the convulsions. Next day I found his temperature had fallen to 101°·3, the pulse was quiet; the urine, however, contained a small amount of albumen, and was of sp. gr. 1·014.—*The Practitioner.*

Urticaria as a consequence of the administration of Sodium Salicylate.—The following case of urticaria came under the observation of Prof. Leube's *poliklinik* last winter. A man aged 45, who had been healthy till he came of age, when he suffered from a tedious attack of rheumatism, suffered a relapse and came for advice to the clinic. The left elbow and right knee were slightly swollen, and the skin was somewhat reddened, whilst great pain was experienced in the affected limbs. The heart was normal. The clinical appearance of the disease resembled the usual type, but its course was protracted. During the ten days following admission 0.50 of sodium salicylate were administered every hour, without any good effects becoming apparent, though no signs of any change in the organism were noticed. A large dose of the substance—four grams—was then given by way of experiment. The same evening the patient suffered from an intolerable itching, which came on shortly after injection of the powder, and lay rubbing himself with the woollen bedclothes, though on superficial examination nothing was seen

except that the left half of the face, the lower extremities, and a part of the chest were very red: on a closer examination both eyelids, the upper lip, and the lower extremities as far as the middle of the lower part of the thigh, were slightly œdematous. The temperature was 38-8° C. the pulse 80. The urine albuminous. A physical examination afforded no results of importance. The orginal rheumatism, however, was much improved, as the patient did not feel so much pain in his affected joints. On the following day the temperature in the morning was 37-8 and the pulse 80 ; in the evening 37-2 and 76 ; there was no trace of redness. Three days later the patient was free from pain ; but on the fourth he suffered so much, that a second large does of sodium salicylate was ordered. The observations were then made cautiously. Fifteen minutes after injection of four grains of the powder, a burning pain was felt in the forehead, five minutes later great itching of the skin over the right metacarpals. There was slight œdema of both eyelids, and surrounding parts were somewhat reddened. The redness spread over the left ear to the neck, whilst œdema of the upper lip became apparent. Soon afterwards great itching was felt over the epigastrium, and over the whole abdomen an eruption of pale and sparsely spread vesicles were noticed, situated upon a red ground. Half an hour afterwards the patient felt the itching over the whole of his body, and the vesicles were apparent on his legs, whilst his arms were in a well-marked œdematous condition, without any reddening of the skin. An hour later the visicles had disappeared, though the reddening of the skin remained apparent for two or three hours. The urine was free from albumen some hours after the attack. On the following day nothing could be seen. Six days afterwards the experiment was again made with similar results. The condition of the patient was always improved, and he continued to take small doses, which were without effect in causing urticaria. After complete recovery of the patient he again took a large dose, followed once more by the appearances described. (Dr. Heinlein, *Aertzliches Intelligenzblatt*, 1878, No. 15, *Med.-Chir., Rundschau*, Oct 1878. *The Practitioner*.

Treatment of Sore Nipples.—Dr Hausmann's plan of treating sore nipples by the application of solutions of carbolic acid has recently been tried in the lying-in wards of the Berlin Charité Hospital. Instead however of applying strips of lint saturated with the solution, Dr. Steiner directed that the acid should be brought into contact with the sores by means of a camel-hair brush. Forty cases have been thus treated with satisfactory results. A 5 per cent. solution seemed to be most efficacious; its application may be said to be painless, as it causes only a very slight burning. By means of the brush the acid can be applied to the smallest cracks, and two or three applications of this kind daily are usually sufficient. A shield of course must be used when the child is put to the breast. Dr. Stiener also tried solutions of thymol, 1 in 1,000, for a similar purpose, but found them to be far less efficacious than the carbonic acid.—(*The Medical Examiner*, August 8,1878.) *Practitioner.*

Fuchsin in Chronic Nephritis and Dropys.—Dr. Bouchut communicates the case of a boy six years, who had suffered ten months previously from scarlet fever, and who was now ill from severe albuminuria and dropsy. The temperature was 39° C. The child was ordered ·10 fuchsin in two pills and a milk diet, and on the following day 0·15-0·20 grammes of the same drug. The albuminuria and dropsy completely disappeared after fourteen days of this treatment, whilst no bad effects were observed. The author draws no conclusions from this case, but he thinks, and no doubt correctly, that these means ought to be tried in those cases of chronic albuminuria in which other methods of treatment have been adopted ineffectually.—(*Gaz. des Hôpitaux*, 1878, No. 43; *Med. Chir., Rundschau.* Oct. 1878.)—*The Practitioner.*

Danger of Atropin.—M. Galezowski at the Séance of the Societé de Biologie of Paris, séance of November 16th, 1878, showed that in many diseases dropping of atropin into the eye was attended with danger. He quoted several cases of a adults as well as children in which serious results had followed from absorption by the media of the eye, of very small doses of this substance. In short, Mr. Galezowski believes atropin to be an exceedingly useful, although at the same time very dangerous remedy, which should be used with the greatest caution. Duboisin which can replace atropin is a less dangerous drug, because its principle is less active.—(*Le Progrès Medicale*, November 31, 1878.) *The Practitioner.*

CANADA

Medical and Surgical Journal.

MONTREAL, FEBRUARY, 1879.

CORONER'S INQUESTS.

We insert, by request, a letter from Dr. O'Leary, addressed to the Editor of *The Montreal Herald*, which will be found to be a running commentary on the inquest held on the body of the late Richard Patton, suspected to have died by poison, or of having committed suicide by swallowing an over-dose of morphine. We do not think that it has been proved positively and without doubt, that the deceased actually did die of morphia poisoning, but then it was not to be expected that the mere examination of the stomach and its contents would satisfactorily prove this point.

The whole affair from beginning to end appears to have been bungled.

An inquiry touching the death of an individual, to be of any service in the administration of the law, ought to be conducted on such principles as to leave no loop-hole or assailable point where a doubt can be entertained. The law always leans to the side of mercy in criminal cases, and the prisoner is entitled to the benefit of any doubt which may arise. This is a well-known axiom, and since it is so, why should not the Government guard against any such possibility by the employment of skilled evidence where such is attainable. In the method of conducting inquests as at present followed, it does appear to be a mere matter of form, a disagreeable form which has to be gone through, but which means ing, and practically amounts to nothing. The country is saddled with expense in conducting a meaningless inquiry, which in the end serves to fill our evening

papers with a sensational column, full of horror to the readers, full of harrowing circumstances to surviving friends, which points to no moral, but rather panders to the prurient curiosity of a debased taste of the public at large.

We do not desire to say anything of a personal nature regarding those engaged in the special inquest under discussion, but can alone remark, that whatever the suspicion as to cause in the death of this unfortunate man, we cannot admit that it has been proved that he did die of poison. The presumption may be in favor of morphia poisoning, but in the Scotch acceptation of the term it remains unproven. With respect to inquests we have something to say.

If it is necessary to hold an inquest at all we should apply the old-fashioned maxim, "if it is worth doing, it is worth doing well." An inquest of this solemn nature ought not to be done in a slovenly manner. Any case that is likely to come before the criminal or civil courts ought to be so conducted as to leave no question of doubt. To secure this end, so desirable, the persons employed should be thoroughly conversant with the law and in their several departments possess the acumen of experts. If a chemical analysis is to be conducted the Government ought to employ a person, not second-hand, but direct, who is known to be capable of carrying out such analysis. In the case of the late R. Patton, the contents of the stomach were required to be analysed, and, strange to say, to Dr. O'Leary, who we believe to be a very excellent private practitioner, was allotted the task of searching for the poison. We were somewhat surprised that the Doctor assumed the task, but in doing so he had to associate with himself, or to secure the services of a known practical chemist, so that the country is called upon to pay for the services of two men, both we presume, charging the customary fee. We think Dr. O'Leary would have been more true to himself had he refused to accept the responsibility of such an investigation, and have referred the Government to a practical chemist. This is merely our opinion, and can go for all it is worth.

But again, in conducting an enquiry, we think the Government would be better served if instructions were given to their officer

to employ the services only of those who make a special study of subjects of this description. In this city there are three schools of medicine, and in each school the subject of Medical Jurisprudence is taught; who is better able to conduct a preliminary inquiry and perform a post-mortem examination in cases of suspected foul play, than a man who makes it his special study, who is constantly teaching how a post-mortem examination ought to be conducted in any special case where suspicion of murder or suicide exists. Had any of these gentlemen conducted the examination of the body in the above case, we hardly think they would have omitted the precaution of securing the contents of the urinary bladder, or some portion of the liver or blood, to prove that the poison, if any existed in the stomach or its contents, had entered the system and was in process of elimination. Then, again, we are not all chemists. This is a department of so special a nature that it is simply absurd to expect a satisfactory and reasonable report from any but a man who makes it his special study, and who is provided with the necessary apparatus for carrying out his inquiry. There are very few all-round men in the profession, though some may flatter themselves they can adorn any position to which for the time they may be called upon to occupy.

To the Editor of the MONTREAL HERALD.

SIR,—The Government of Quebec having honored me with an appointment in connection with the inquest case of the late Mr. Patton, I think it is my duty to inform the Government and the public of the way in which inquests are held in Montreal. I have no personal interest whatsoever in this matter; but I will make a short review of it for the purpose mentioned, which will show the negligence of the Coroner in not summoning important witnesses, his want of personal dignity, and his moral inability to keep proper decorum in his own Court, thus allowing jurymen to make false accusations against absent important witnesses, just to influence their fellow-jurymen; and the indecency of his allowing political squabbles and a censure of the Government whose officer he is.

Mr. Patton, a respectable and well-known business man, whose life is insured for a considerable amount,—which is forfeited in case of suicide—fails in business. A few days after he suddenly disappears. After five days of research he is found dead, under the suspicious circumstances common in cases of suicide—that is to say, in a sleigh stored in a hay-loft of his residence. The Coroner empannels a jury, who take the following

oath, which, with our present Coroner, is generally their only guide in coming to a conclusion :—" You shall present no man for hatred, malice or " ill-will, nor spare any through fear, *favor* or *affection;* but a true verdict " give *according to the evidence* and the best of your skill and knowledge, so " help you God." Here is, in substance, the evidence according to which only the jury was sworn to bring in a verdict. Mr. Williams merely swears to the finding of the body. Mr. Thos. Shaw knew deceased for 14 years and had noticed for some time past that his spirits were considerably depressed. Two other witnesses, Mr. A. C. Hutchison and Mr. H. T. Patton—the latter deceased's son—testified to the same effect. But Mr. Shaw, having taken breakfast with deceased on the morning of the 14th December, the date of his disappearance, found him much quieter than usual. He took very little breakfast, walked down to the lane in rear of deceased's residence, which deceased entered without further remark. This was a little uncommon, as formerly he used to say that he was going no further, or something to that effect. Apart from the medical and chemical evidence, this is all that was submitted. However, to complete that part of the evidence upon which, or rather against which, the jurymen must have founded their finding, if they found it upon evidence of any kind, I will insert that part only of the medical evidence contained in the following question and answer :—

Question by a juryman to Dr. Reddy—If the circulation of the blood of the deceased were weak, so as to cause partial numbness of his hands, would *excessive grief* and mental prostration, combined with this weakness, not imperil his life?

Answer by Dr. Reddy—It would not!

Dr. Reddy is a physician of great experience and learning—ranks amongst the first of this city—and I may say that he has expressed on that point the opinion of the Faculty. Nevertheless, twelve jurymen, sworn to investigate the cause of the man's death according to the evidence only, return the following verdict :—" That Richard Patton had, for some time " prior to his death, been in a weak condition of body and in a desponding " state of mind : the jurors are of opinion that the death of the said R. Patton " was caused by exhaustion and grief." Now, any man may see that—1st. There was not any evidence of a *weak condition of the body;* 2nd. Nor of any *exhaustion;* 3rd. As for despondency and grief, Dr. Reddy says emphatically that a man cannot die of grief under such circumstances, of course.

I will next notice the medical and chemical part of the evidence, not so much to criticise the verdict as to suggest whether the Government would not do better to employ the expense for medical evidence, which is considerable in such cases, to a better purposes. It might be given, for instance, to educational institutions, for the purpose of instructing children in the rudiments of medical jurisprudence. Are twelve such men as are generally empannelled at an inquest, or even men chosen amongst the most intelligent classes, if they have not made a special study of physiol-

ogy, pathology and medical jurisprudence, reasonably to be expected to understand and judge of a *post-mortem* examination or a chemical analysis? If they are sensible men they will accept the opinion of experts, but ignorance is always presumptuous, and, in this Patton case, one juryman went so far as to say that he did not care for the opinion of Dr. Girdwood or any other M.D. If that opinion were expressed by an intelligent man, it would certainly be not very complimentary to the profession; such as it is, it amounts to nothing. This very omniscient juryman apparently does not even know the difference between a fact and an opinion, for he asked whether, from the morphia found, we were prepared to swear as *a fact* that Patton died of its effects? We might just as well have been asked whether we were prepared to swear as a *fact* that Mr. Patton was dead at all. Never having seen Mr. Patton, dead or alive, the answer must have been "No;" but we were of opinion that he was really dead, and could so swear. So with our opinion as to the cause of the death; circumstantial evidence, as everybody knows, is in many cases more reliable than direct evidence. I relate this incident as an example of how medical evidence is appreciated by incompetent jurymen, and again ask, whether Government is justified in incurring expense attended with such useless results? Reverting to the medical evidence. Dr. Reddy is entrusted with the "*port-mortem*" examination. He associates with him Dr. Osler, a clever and promising young practitioner. Dr. Reddy and Dr. Osler report the perfect healthiness of all the organs and the absence of all *natural* causes of death—with the exception of the stomach, which they do not examine, but tie up carefully, and insinuate that *there* will probably be found the cause of death. They also advise the chemical analysis of its contents, which Dr. Girdwood and myself proceeded to make. We invited Dr. Reddy and Dr. Osler to be present with us, in order to give them the opportuuity to complete their "*post-mortem*." Dr. Osler being out of town, Dr. Reddy alone came; and he will not object, I am sure, to my relating what otherwise he would, doubtless, have said himself before the jury, had he been asked to attend at its subsequent meeting. After giving us, from memory, a very graphic description of the "*post-mortem*," he observed that:—"What struck him "most of all was the appearance of deceased when he first saw him. He "looked just as if he was sleeping, and, had he not known him dead, his "first impulse would have been to give him a good push in the ribs, and "would have expected him to wake up suddenly and exclaim, 'Hallo! "What's the matter?' He was just like a man that had passed from life "to death in a sound sleep."

We conclude our analysis, find morphia in undoubted quantities, and report accordingly to the jury. The only question I am asked is, whether deceased died of the quantity of morphia found in the stomach? I am surprised that the Coroner should put such a question. From his long experience as Coroner he should have known that it is not the quantity of poison found in a man's stomach that causes death, but the quantity absorbed into the system; and it is impossible to ascertain the quantity

which is thus absorbed. Answering to what the Coroner probably meant by the question, rather than to its literal meaning, I said that he might or he might not, according to circumstances,—and then I awaited the next question to explain my opinion of the cause of death. This, however, was not asked. The question that should have been put is this:—From your analysis of the contents of the deceased's stomach, and from a careful examination of the *post-mortem* report, what is your opinion of the cause of the late R. Patton's death? Medical men are called before Coroners' Inquests to give opinions, and nothing more. If the opinion is not to be accepted, it is no use for them to be called. The question put to me is asked of Dr. Girdwood, who answers in the same sense, and goes on to explain his opinion, when a juror orders him to cease. The Doctor endeavors to proceed, when he is again interrupted, in grossly uncomplimentary style, by such expressions as "I do not care for your opinion; I care for no M.D.'s opinion," and so on. Nevertheless, after considerable difficulty, Dr. Girdwood contrives to give his evidence, to the effect, that having examined the *post-mortem* report and other circumstances, he is of opinion that deceased died from the effects of morphia. To recapitulate, shortly—there was no external evidence, except that of the ordinary anxious state of a man in business troubles, nor any *natural causes* of death. But poison was found in the stomach, and the medical opinion, strongly expressed, was that the death was caused by poison, consistently with the *post-mortem* indications. The novel theory of dying from grief was emphatically rejected by medical evidence. But verdict, "Died of Grief!" After making the poor man die of grief, this most intelligent jury add: "He did not die "of morphia!" Rather evident. After this, surely, they should apply for a patent. Suppose the following identical case:—A disappointed lover is found dead with a dagger through his heart. The "Patton patented jury" would surely return the following verdict: "Died of love and grief—"the dagger having nothing to do with the man's death!!" I add a few remarks as to the negligent, irregular and undecorous manner in which this inquest was conducted. 1st. The chemical analysis having been decided on, the Coroner should have submitted for analysis the stomach, the liver, the bladder, with whatever urine it contained, and a part of the brain, in air-tight vessels, sealed with wax. In this case the stomach only was submitted in an unsealed vessel. Two days before the last meeting of the jury, Coroner Jones was informed, by one of the analysts, that morphia was detected. The same day friends of Mr. Patton were apprised of the fact. Hence that disgraceful scene in the jury room before our arrival—when the correspondence with the Government was asked and submitted; when attacks against the Government, their followers and their nominees were freely made; and when false and most absurd accusations about insurance influences were uttered, in the most ungentlemanly and vulgar manner, in the presence of the Coroner, with the evident intention of influencing the jury. If the Coroner had had a proper sense of his duty, and of the importance of his office, he would have adjourned the inquest to another

day, and not allow, as he did, the jury to return a verdict while laboring under such false impressions. Jervis, on "The Office and Duty of Coroner,' says :—"Where the jury suspect that undue influence has been used, the "Coroner may, in the exercise of a sound discretion, adjourn the inquest "to a future day." It was plainly a case to adjourn. Next, when Drs. Reddy and Osler were asked their opinion as to the cause of death, at the second meeting of the jury, they reserved their answer till the stomach should be analysed. Why did not the Coroner summon them to be present at the last meeting? They had made the *post-mortem*, and, being afterwards informed of the results of the analysis, were certainly most important witnesses. They were not present. Previous to the last meeting it was currently reported, and known to some of the jurors, that a certain druggist had sold poison to the late Mr. Patton. Why was not that druggist summoned?

I respect Mr. Jones for his great age and amiable social qualities; and what remarks I make in this letter concern only his functions as a public officer. But the only conclusion that could be arrived at, after the consideration of the present case, is, that Coroner Jones is not sufficiently qualified to fulfil the duties of a Coroner, which, besides, requires a great deal of physical activity. Coroner Jones is bordering on seventy-two years of age. He has been employed in the service of his country for over forty years. He has, no doubt, discharged his duties to the best of his abilities. He should be allowed to retire for his own good and that of the public, with a gratuity equal to his position in society. Economy is very good, but should not interfere with public interests; and a well qualified person, well versed in medical jurisprudence, should be named in his place. A fixed salary should also be attached to the situation, to render the Coroner independent, and not, as now, dependent on the number of inquests, or the time they occupy.

I have the honor to be,

P. O'LEARY, M.D., McGill.

Montreal, January 17, 1879.

POND'S IMPROVED SPHYGMOGRAPH.

We have received one of these instruments from th manufacturer, and believe it to be a decided improvement on those already in use. It is well finished, small, compact, easy of application, and does not get out of order with fair usage. It is capable of being applied to any part of the body, and a tracing may be had from any artery sufficiently superficial to give anything like an impulse. Moreover it may be applied over the heart, and a cardiagraphic tracing be obtained.

Various modifications of Marcy's instrument have from time

to time been introduced, but for compactness, simplicity, delicateness and accuracy, we believe that Pond's instrument is superior to them all. It is so readily applied that it gives no more trouble in its use than does the clinical thermometer.

Another advantage in this instrument is its compact size, being easily carried in the pocket, and always ready for use. A tracing can be easily obtained by holding the instrument over the seat of the vessel, although each instrument is supplied with an adjustable bed on which to lay the arm while taking a tracing.

Another invention of the Pond Sphygmograph Company is a method of reproducing the tracings on paper. This, of course, is applicable to the tracings taken by any instrument, and is of incalculable benefit, as through its various copies of tracings in each case under observation can be readily made and preserved in a case book. This process consists in preparing a solution of the ammonio-citrate of iron, and also a solution of the prussiate of potash. These solutions are mixed and kept for use in a dark bottle preserved from the action of light. When desired to obtain a print of any tracing, a slip of paper is prepared by wetting one side only in the above solution and drying it in a dark room. In printing the same method is adopted as in printing a photograph, the mica tracing being the negative from which is obtained the print. Specific directions are given of the strength of the solutions, and of the method to be followed in obtaining the copy on paper. We commend this instrument to those of our readers who are desirous of possessing a sphygmograph. It is without doubt the most compact and handy instrument of the kind in use. On reference elsewhere the advertisement of the Pond Sphygmograph Company will be found.

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CANADA

MEDICAL & SURGICAL JOURNAL

MARCH, 1879.

Original Communications.

COHNHEIM'S THEORY OF TUMORS.

Translated and condensed from Vol. I. of his Vorlesungen Ueber allgemenie Pathologie (Lectures upon General Pathology).

By Dr. Osler.

Read before the Medico-Chirurgical Society of Montreal as an appendix to a report of two cases of rare Kidney Tumors—Striped-Muscle Sarcoma, and Spindle-celled Adeno-Sarcoma.

The nutrition disturbances which the organs and tissues of the body can undergo—up to the limit of actual necrosis—may be arranged in three groups. In the first the organ or tissues become smaller, but are otherwise unchanged (simple atrophy). In the second, there is a change in the chemical constitution of the part; fat exists, for example, where there should be albumen only, lime salts are in excess, or substances may occur such as amyloid, which normally are not found in the organism. In the third, the physiological proportion of individual organs is exceeded, or certain structures exist which do not conform to the normal anatomy. In this are classed the pathological regenerations, the hypertrophies, and the tumours. In these processes there is a change in the physiological balance between waste and nutrition in favor of the latter, by which means alone a definite increase of tissue could take place.

Naturally, during the whole period of physiological growth, this is a law of the organism.

The ultimate and essential cause of all growth depends on the organization of the species—hereditary, or, as they might be called, historical causes, in consequence of which the body and its organs, in each individual species, develop to a typical form and size, requiring a definite period of time for the whole body, and a variable period for the different organs, some of which attain their full development much earlier than others—the thyrmus, for example, at the second year, the genitals at puberty. In the history of these latter organs the most striking example is afforded of the influence of the original tendency on the physiological growth of the body. On no other ground can it be that the genitals during childhood remain undeveloped, to begin at puberty a rapid and increased growth, which in comparison with that of childhood is abnormal, and is not regarded as such simply because, according to the type of our organization, the child-like growth is only normal for a definite period. But in the same organs a much more marked instance of (abnormal) growth, dependent on inherent tendency, is afforded by the enlargement of the pregnant uterus. The cause of this cannot be regarded as due to the increased blood-flow, for muscle fibres do not grow unless they are stimulated, *i. e.*, work,—as, for example, the muscles of the stomach or bladder when there is any unusual resistance to be overcome. The hypertrophy of the uterus can in no way be compared with this latter form of growth, but only with the enlargement which all parts of the body undergo during the period of development, that is to say, in consequence of an inherent tendency in the germ of mammalia, the uterus, under certain conditions, namely impregnation, grows beyond its normal size.

The explanation of the occurrence of monsters, *per excessum*, is to be sought for in some abnormality in the embryonal plan. In such cases the abnormality is congenital, but there are instances of abnormal growth, *post partum*, which must also be referred to embryonic influences. In the case of giants, some are born as

unusually large children, others of ordinary size, the excessive growth not beginning until months or years after birth; but in either case, though we know too little of the details of the growth in the individual tissues to say wherein lies the error in design, yet it must be in peculiarities of embryonic constitution. The instances of excessive development, both before and after birth, of one or more extremities, of which there are several examples, must depend on the same cause.

Probably all pathologists agree that in the above-mentioned cases, embryonic tendencies alone afford a suitable explanation. Prof. Cohnheim, however, would apply this view over a much more extensive, and, in some respects, important territory—viz., the pathological new formations. From these he excludes on the one hand the retention tumors, such as cysts, &c., and on the other, the infection tumors, resulting from syphilis, tuberculosis, lupus, &c. He adopts Virchow's classification :— I. Tumors constructed on the type of the connective tissues, such as fibromata, lipomata, chondromata, angiomata, lymphomata, sarcomata, &c. II. Such as correspond to the epithelial type—epitheliomata, adenomata, carcinomas. III. The type of muscle tissue—myomas, smooth and striped. IV. The type of nerve tissue—neuroma. Veratoma, in which entire histological systems may be represented, skin, hair, teeth, bone, &c., as in the dermoid cysts. In framing a definition of a tumor, to exclude simple hypertrophies of tissues, such as fatty tissue in obesity, or bone in exostosis, stress must be laid upon the fact that these do not conform to the anatomical type of the part. Thus in a hypertrophy of the uterus in consequence of defective involution, or chronic metritis, the typical form of the organ is maintained, but not so in the fibro-myoma. In hypertrophy of stratified epithelium the normal arrangement is maintained, while the thickness of the layer is increased, whereas the epithelial growth of a carcinoma is highly irregular. The *atypical* nature is a significant, nay indispensable, criterion of every true tumor, no matter what its histological structure may be. Still, even this will not suffice, as a glance at the history of inflammation will show, for what can be more atypical than a fresh bony

callus after a fracture, a pleuritic or peritoneal adhesion, or a fibroid patch in the heart muscle ?—all which are new formations in the strictest sense of the term. Something more is needed to separate these from the true tumors, and that is to be found in the etiology alone.

Among the hypotheses which have been advanced to explain the origin of tumors that of mechanical irritation, traumatism, has played an important part, and the number of cases is considerable in which a locality, the seat of a new growth, had been injured. Böll, in 344 cases operated upon in Langenbeck's Clinic, was able to trace a traumatic origin in 42, *i. e.*, about 12 per cent., and about the same percentage was found in the 574 cases treated in the Charité Clinic during the past ten years; that is to say, in 86 per cent. of all cases, in which special attention was directed to this subject, no trace of traumatic origin could be ascertained! Cohnheim concludes that hypertrophy and inflammatory products may follow traumatism; true tumors never. The view of the infectious origin by means of a virus has been supported by some writers, but experiments have shown that cancer is not communicable from animal to animal, or from man to man.

The embryonic predisposition (or design) affords by far the most plausible explanation, and has already been urged by certain pathologists in the case of the dermoid cysts, but not for tumors in general. Cohnheim states his theory in the following terms: The simplest way of representing the matter is to suppose that at an early stage of development more cells are produced than are necessary for the construction of the affected part, so that a cell mass remains unused, probably of extremely limited dimensions, but, on account of its embryonal nature, of very great productive activity. The period of this superfluous production of cells must be placed very early, possibly between the differentiation of the germinal layers and the complete formation of the ground-work of the individual organs; at least, so it seems best conceivable why from the error, not a general hypertrophy of a part takes place, but only a tumor—an excessive growth of one of the tissues of the part.

On account of our present very imperfect knowledge of the details of early embryonal growth, we can only deal in suppositions such as these. The main point is that the essential cause of the growth of tumors is an error or irregularity in the embryonic construction. Positive proof of this is, in the nature of things, not forthcoming, but a whole series of facts may be brought forward in its favor. Thus, for example, the hereditary nature of many growths—carcinoma, osteoma, lipoma, &c., which have appeared in several generations in the same family, and more frequently inherited from the mother than the father. Cases are on record of the tumor being confined to one organ—as the breast—through several generations, or not to a definite locality, but to a histological system, so that in several successive generations one member of the family has had an enchondroma of the pelvis, another of the humerus, a third of the femur, &c. This view is further supported by the congenital appearance of tumors. The teratoma are very frequently congenital, and other forms are by no means rare, such as fatty and fibroid tumors, and enchondromas, carcinomas and adenomas have also been met with. It is not, however, in the majority of cases the tumor which is congenital, but the predisposition thereto—*i. e.*, there exists a superfluous mass of cells out of which a new growth can develop. We do not know what it is which gives the impulse to these germs, causing them to increase and multiply; nor do we know why their development is checked or restrained. Perhaps it is the resistance of the normal tissues, and this may afford an explanation of those cases in which a growth has followed an injury, which may be supposed to have weakened the physiological resistance of the surrounding tissues.

It is a well known fact that certain epithelial tumors, cancroids and carcinomas, have a special preference for the orifices of the body, the lips and tongue, alæ of nose, eyelids, prepuce, glans and rectum; also, very frequently the external os uteri, and in the œsophagus the spot corresponding to the fork of the bronchi. The existence of these predilection spots has been urged strongly in favor of the part played by mechanical insult in the etiology of tumors, but if this were the case,

how much more common should new formations be in the hands and feet, the parts above all others most subject to injuries. The reason of this special predilection is to be sought in quite another circumstance. All the above-mentioned regions are places in which during development a certain complication has occurred. At the various orifices a folding in of the outer germinal layer, and a union of it with the internal layer has taken place, during which a slight irregularity might very easily occur, resulting in the inclusion of a few superfluous cells—the germs of a future tumor. The situation of œsophageal epithelioma opposite the bifurcation of the trachea is best explained, not by supposing that here there is greater pressure against the bronchi, but because this is the point where the original trachea and and œsophagus were in connection with each other, and at which a developmental complication could very readily take place. In the rectum, further, it is not the orifice, the anus, where cancroid develops, as one might expect on the traumatic theory, but a point further in, where the epithelial tube of the rectum has united with the involution of the outer layer. So also in the female generative apparatus, it is not the vulva which is the chosen seat of the cancer, but the external os, the very spot at which in an early period of development the squameous epithelium of the sinus urogenitalis has united with the cylindrical epithelium of Müller's duct.

Other tumors besides cancers have special localities which they affect. Thus the greater portion of all smooth myomas occur in the uterus. How is it that this rare form so frequently develops in this organ? Simply because in every uterus germs exist which normally grow only under the physiological stimulation of impregnation, but which, occasionally, under other than physiological stimuli, develop in an irregular, atypical manner.

So also with the myoma or adeno-myoma of the prostate, the so-called hypertrophy, but which is in reality a true tumor. In this organ there is no physiological disposition to exceptional growth, and traumatism has probably nothing to do with it; but a consideration of its development points to the same cause as noted for the os uteri—the prostrate develops at the point

of junction of Müllers duct, with the sinus urogenitalis, a locality in which the developmental processes are in the highest degree complicated.

The heterologous tumors, those which deviate in their structure from the native soil in which they grow, afford a very strong support to this theory. Without it we must conclude that, contrary to all laws of physiological growth, there may rapidly develop, out of gland tissue, cartilage; out of connective tissue, epithelium; out of kidney substance, striped muscle; out of lung tissue, bone. What is very peculiar, all these tumors maintain a remarkable uniformity in relation to locality. Thus the enchondromas of bone never originate in the cartilaginous regions, but always out of the fully ossified parts, taking their origin from tiny embryonal cartilaginous remnants, which have not been used, and which remain within the bony tissue. The germs of the enchondroma of the parotid region represent particles of the original cartilage matrix, which have remained unemployed. The majority of dermoid cysts occur either sub-cutaneously in the region of the face and neck, or else in the testicles or ovaries. Their frequency in the first situation may be explained, as suggested by Lücke, by the complicated processes which go on in the formation of the face and neck. The intimate relation of the wolfian body, which represents the original genito-urinary organ, with the external layer on the one hand, and the middle layer on the other, makes it easy to understand how it is that in these organs dermoid, muscle and osseous tumors so readily develop. A very slight error in the separation of cells from the outer layer, from which the skin is formed would suffice to include germs of a dermoid cyst, and from the middle layer, from which muscle, cartilage and bone develop. to furnish germs of myomas, enchondromas and osteomas, This theory also explains satisfactorily the atypical nature of these growths, their deviation from the morphological type of the locality, for the germs from which they originate being superfluous, are not taken into account in the formation of the parts, so that when they do develop, it cannot be in any other than an atypical way. When the germs are a superfluous pro-

duct from the cells of an equivalent tissue, the tumor corresponds histologically with the base in which it grows; for example, a lipoma, which has resulted from the growth of superfluous germs affects cells in the sub-cutaneous tissue.

One of the most interesting features in tumors, and one which strongly supports this theory, is the fact that certain of them are made up of tissues, embryonal in character, and having no counterpart in the adult body. This is particularly the case in myxomas and sarcomas. The former tumors are composed of a gelatinous, translucent, mucoid, mass, in which is embedded a larger or smaller number of round and spindle-shaped cells. Such a tissue is unknown in the adult body, unless perhaps in the vitreous humour, but in the embryo it is a normal precursor of certain of the connective tissues. When in the thigh of an adult a large sub-cutaneous myxoma is found, shall we believe that here the cells of the sub-cutaneous tissue and fat have produced a tissue of specially embryonal nature, and from the material supplied to them from the blood have formed, not cologen and fat, as is their wont, but mucus? Or is it not more reasonable to suppose that the germs have originated at such a period of embryonal life when it is the physiological function of the cells to produce a mucoid tissue. So also with the sarcomas, that remarkable group of tumors defined by Virchow as new growths of connective tissue with a preponderance of cellular elements. We must go far back in embryonic life to find the histological prototype of a round or spindle celled sarcom. Only in the very early stage of the formation of the connective tissue organs do we find them composed of closely-packed cells with but little intercellular substance. Where the cells of a dura mater, of a fascia, or of loose connective tissue produce a primitive and in the highest degree embryonal tissue, is it not again preferable to suppose such originates from superfluous, unemployed germs of an exceeding early date, which have remained included in the tissues?

A tumor, then, may be defined to be an atypical new-formation of embryonic constitution. Tumors have a direct relationship with the so-called mal-formations, forming in reality a sub-

division of the *monstra per excessum*, of which forms the greater number, unlike the tumors, are congenital, only a few developing later in life.

Relation of Tumors to Hypertrophies.—The etiological conception can alone afford that sharp boundary between hypertrophy and inflammation on the one hand, and new growths on the other, which the instinct and unbiassed judgment of physicians have repeatedly demanded and exact research as often effaced. How little in reality the anatomical stand-point suffices for the elucidation of this process is amply shown by the example of a well-known and simple growth, viz., goître. According to the pathologies this is an enlargement of the thyroid body caused by an homologous tissue growth, which sometimes involves the entire organ, sometimes one lobe, or the part of a lobe; in individual cases accompanied with exophthalmos and hypertrophy of the heart, arises epidemically from miasmatic causes, and without such, sporadically, sometimes diminishes spontaneously or with the use of iodine. An entirely different view is afforded when etiological principles are employed. The thyroid enlarges, grows beyond its physiological mass, when the arterial blood flow is for a long time abnormally increased; this happens in Basedow's disease, very probably on account of adilator neurosis; in other cases under the influence of a local, and as yet unknown, miasm. What occurs under these conditions is an hypertrophy of the thyroid, which disappears when the cause is removed. Totally different from this is the abnormal growth in consequence of superfluous embryonal germs. What results in this case is also thyroid tissue, which may undergo colloid change, like the hypertrophic variety, but it presents itself in the form of an atypical mass, a true strumous tumor, which is independent of locality or miasm, never is cured with iodine, nor accompanied with exophthalmos. In the former the whole gland is always (in Cohnheim's experience) involved; the latter—the true tumors—occur in the form of atypical masses, so that there is an anatomical criterion which renders it possible to distinguish these forms. Microscopically it would be as fruitless to attempt to distinguish between a miasmatic goître and a true strumous tumor as between a lipoma and polysarcia.

Still more instructive is the history of the lymph-gland hypertrophies and growths. There groups can be determined (1.) the simple indurative enlargement, in consequence of chronic catarrhal and other inflammations; and also the proper lymphoma, occurring in the form of a more or less hard gland hypertrophy, which neither suppurates nor becomes caseous, arising without previous inflammation in neighbouring mucous membranes, and situated chiefly in the neck; (2) a number of forms of gland-hypertrophies, more or less extensively distributed over the lymphatic system,—such are the leukæmic, the scrofulous, and the tuberculous swellings; (3) the lympho-sarcoms. From these varieties the scrofulous gland hypertrophy alone is anatomically characterized and distinct from the others by the caseation pathognomonic of it. But who, on account of the remarkable similarity of a leukæmic with a lympho-sarcomatous gland, or a common lymphoma, would identify all these processes with each other, in spite of the total dissimilarity in the constitution of the blood, and in spite of the varied course. The etiological conception brings perfect clearness into this confusion. There can be distinguished (1) an inflammatory hyperplasia—analogous to a periosteal, peritoneal or pleural thickening—the indurative lymphatic swelling; (2) infectious hyperplasias, to which certainly belong the scrofulous tumors, and probably also the leukæmie—*i. e.*, if leukœmia is an infectious disease, in any case, we have to deal with a general disease, excited by an unknown agent; (3) enlargements dependent on embryonic predisposition, the true tumors of these glands, the lympho-sarcomas and the lymphomas, which stand in the relation to each other of malignant and benign growths.

The etiology alone enables us to make a scientific separation of the true tumors from inflammatory products. In consequence of a periostitis bone may be formed, fibrous connective tissue in consequence of an inflammation, and also stratified epithelium may be abundantly produced from the same cause. Are we, therefore, to conclude that wherever a new formation of these tissues is met with, there has been a previous inflammatory process? Far from it. But wherein shall one distinguish a

bony, fibrous, or epithelial growth from a product of inflammation of the same histological characters? Not by the atypical form, for the most spinous exostosis is not more atypical than the callous needles which often form in the healing of a splintered fracture, and a cutaneous horn is not more atypical than a pointed condyloma. One may examine the respective objects with the most extreme care, macroscopically, microscopically, and even chemically, and the etiology remains, the only distinguishing characteristic. When a leg becomes enormously enlarged, elephantiac, in consequence of repeated inflammation of the skin and lymph vessels, it remains an inflammatory product. An elephantiasis of the scrotum or nympha, on the other hand, coming on without inflammation, either hereditary or even congenital, *i. e.*, in consequence of some peculiarity of race, is a tumor. A true neuroma is a tumor consisting of nerve fibres, which has formed either singly or in numbers along a nerve, but when at the stump of an amputated nerve, in accordance with the principle of nerve regeneration, a mass develops out of the old fibres and forms an inextricable coil, it is not, in spite of its atypical form, a true tumor.

(*Conclusion in Next Number.*)

RESPONSIBILITY AND IRRESPONSILITY

IN CRIME AND INSANITY;

A PAPER READ BEFORE THE MONTREAL MEDICO-CHIRURGICAL SOCIETY,

BY THE PRESIDENT,

HENRY HOWARD, M.D., M.R.C.S., ENG.,

[FEBRUARY 7TH, 1879.]

MR. CHAIRMAN AND GENTLEMEN,—Never since the history of literature, has there been so much written upon mental science and mental diseases as in the present day, and these writings are not by the rank and file of the profession, but by the officers. To name all would occupy too much of your time. I would, however, give the names of Maudsley, Clouston, Hach, Tuke, Savage, Bucknell, Creichton Browne, Ferrier, Hughlings

Jackson, Brown Sequard, Eulenburg, Guttman, W. W. Ireland, and there are a host of French writers, besides the men outside of the profession, such as Emel, Du Bois, Reymond, Tyndall, &c.; yet, gentlemen, strange to say, perhaps there never was a time when mental diseases were so little known to, or studied by the medical practitioner. The reason is obvious. As civilization advanced, and science showed insanity to be disease, the treatment of the insane became more humane, and instead of this class being allowed to wander as outcasts about the country, asylums have been provided for those suffering from mental and neuralgic diseases, such as epilepsy, as well as for the imbecile and idiot. No one will deny but this is as it should be; but it has taken away all chance from the medical student and medical man of clinical study of the insane, as well as the study of the pathological ravages made by disease on man's nervous system. Generally speaking, for many very obvious reasons our insane asylums are too far from our cities to give medical students clinical instruction. Again, our asylums are such that a crowd of medical students would derange the whole establishment, and be injurious to the patients. Again, the medical officer of an asylum—for example, myself, as at present situated,—would have no time to give clinical instruction. Now, gentlemen, I have often thought of this anomalous position of medical men, particularly since the late Order in Council in this Province—a very necessary order—compelling medical men, when giving certificates of insanity, to make a solemn affirmation to their certificates before a magistrate. If you knew as much, gentlemen, as I do, you would see how necessary that Order in Council was. Well, I have, as I have said, often thought of this your position, and as to how it could be remedied, so as that your medical students could get clinical instruction on mental diseases. My idea is that if you made arrangements in your hospital, say for four or six patients, one-half male, the other half female, that, by petition, the Provincial Government could be got to consent to allow me, or who ever takes my place after me, to transfer, from time to time, patients from the asylum, for clinical purposes, to your hospital. I do not mean to enter into details,

but merely to point out to you that something might be done. If representatives from the medical schools would wish to speak to me on the subject, I shall be most happy to enter into further details. I am convinced, gentlemen, that something should be done, by which the general medical practitioner should have more knowledge than he now possesses of mental diseases.

Dr. Maudsley, speaking of the duty of the physician, says: "Recognizing the obvious difference between him who *will not* and him who *cannot* fulfil the claims of the law, it is their function to point out the conditions of disease which constitute incapacity."

Gentlemen, I am going to ask you to join with me to do that which Dr. Maudsley says it is our duty to do, therefore I will offer no apology for occupying a short portion of your time this evening in considering a question which I have brought, in one form or another, before you very frequently within the last four years. The Dominion Parliament is now about to assemble, therefore it is a proper time for this representative society to express its views, and ask for legislation to define the responsibility or irresponsibility of the criminal; to ask the legislature to define, on some scientific ground, where responsibility ends and where irresponsibility begins. That society has a right to make laws for its own preservation, is a truth that no sane man can deny, but, that these laws should be based upon justice and benevolence is just as great a truth, which no sane man can deny. From the earliest history of law-makers down to the present day, we find that as mankind has progressed in scientific knowledge,—in fact, as man's intellectual and moral faculties have become more developed, and man, in consequence, has progressed to a higher state of civilization, laws have been more generally based upon justice and benevolence. But, gentlemen, man is, as I have already said, a progressive animal; all history, and science (which is more trustworthy), proves this fact. When we draw the difference between the peoples of the pre-historic age, and the peoples of the present day; when we draw the distinction between the peoples of the historic age and the present day; or, to come still closer, between the peoples of the

present day,—for example, between the European and the African, between the European and the Cannibals of the South Sea Islands,—we must admit that man is a progressive animal. Perhaps, gentlemen, in some millions of years the descendants of these Africans and South Sea Islanders may become, by the natural law of progress, as far advanced as we are now, and our offspring may be so far advanced that crime and insanity would be unknown amongst them. Judging from the past, this is but a natural conclusion to come to with regard to the future. Not, however, being a prophet, nor the son of a prophet, I do not want to speak of the future, but of the present. I want to speak of man just as we medical scientists find him; and how do we find him? We find him differing as much in his mental organization—that is, in his intellectual and moral faculties,—as we find him differing in personal appearance. All men recognize the fact of men differing in their intellectual faculties from the different degrees of idiocy, different degrees of imbecility, and different degrees of intelligence; and society, as a whole, makes no protest when science points out the fact that this intellectual faculty, whether it be or be not cultivated, is dependent upon a man's material brain. But the moment we come to declare the same of the other portion of a man's mental organization—that is, of his moral faculties,—then all the teachers of religion, and all those versed in law, raise one universal cry against us, and we hear on all sides the terms revolutionists and materialists. Nevertheless, gentlemen, it is as true of the moral faculties as it is of the intellectual, and, as you know, admits of as clear anatomical, physiological and pathological proofs. Yet, I admit that all scientific truths are of themselves revolutionary, but they produce a revolution very much to be desired, a revolution that advances civilization; it is, in fact, a daily revolution, going on so gradually and so noiselessly that men hardly observe it; indeed, they do not observe it at all in its growth, and are surprised to find themselves compelled to admit the truth of a scientific fact that they had never dreamt of. As to its being materialistic, of course it is. The mental scientist don't pretend

to treat of anything else but matter; we see effect and we look for cause; we see that men differ intellectually, and we find the cause in the cortical substance of the frontal portion of the hemispheres of the brain. We find men differ morally, and we find the cause in the cortical substance of the parietal and occipital portions of the hemispheres of the brain. We find that irritation of the frontal cells, renders the most intellectual man a raving maniac; that irritation of the parietal cells, renders the most honest man a pick-pocket; and that irritation of the cerebral cells, renders the most pure being a filthy, impure creature. Now, if these be facts, and facts they are, we have no trouble in recognizing another fact, and that is, that every man, in virtue of some abnormal state of his moral faculties, has in him a criminal neurosis,—some to a greater, and some to a less degree. Just as men differ in degrees of intelligence, so they differ in degrees of morality. These are most reasonable, simple facts, gentlemen; nothing contrary to our reason, nothing contrary to our comprehension, nothing contrary to natural laws; indeed, I conceive one of the great difficulties in the way of men receiving these scientific truths is their simplicity. There is something yet remaining in man that makes him like the mysterious and cling to the inexplicable. Writers of fiction know this well, therefore they always write so as to mystify their readers. This abnormal state of man's moral faculties, which mental scientists call a criminal neurosis, and which we account for physically, others call by the terms, his sinful nature, his criminal nature, his rebellious nature, &c., and the cause they assign for it is the consequence of original sin. Well, I see here no cause of quarrel; all admit that the evil is there, and what was the first or original cause of this unhappy state of man is of but little consequence so long as we recognize the fact that man's criminal neurosis, as he is to-day, is due to a physical cause, and that cause is an abnormal or imperfect state of his moral faculties; whether his soul has anything to do with the matter or not is of no consequence to us so long as we treat the disease physically. But, say our law-makers, our lawyers, and our religious teachers, every man must be held responsible

for his acts. The scientist here joins issue and says every man must be held responsible to a degree, his degree of responsibility depending upon his degree of intellectual and moral faculties and his degree of controlling nerve power. The idiot, imbecile, maniac, and morally insane are not responsible at all, and the criminal's responsibility must be judged by the greater or lesser degree of his moral faculties, the degree of his criminal neurosis, and there are some of the criminal class of society whose neurosis is so exaggerated, so incurable, that they are not a bit more responsible than are the morally insane; the habitual drunkard, for example. And here I consider the best time to define for you the difference between moral insanity and what is understood, or what I call a criminal neurosis, or, if you will, moral depravity. I would define moral insanity to be where a man has had a sound moral organization and sufficient nerve control to guide his moral acts, and where by reason of disease or some accidental circumstances, either from reflex action, from functional derangement, or lesion of the parts, or disease of the vascular system, &c., his mental faculties become altogether changed, and he loses power over his moral acts from the loss of nerve control. This man's will may be to do right, but he has no nerve controlling power to resist his impulse; and sometimes, to prevent himself committing a crime, he will commit suicide, choosing, as he conceives, of two evils the least. This is what I call moral insanity, and in such a case the intellect may be unclouded, and the miserable unfortunate know well that he is no longer a moral, but an immoral man; and he is a most miserable man, always accusing himself, although he knows he cannot help himself. Yet, by our inhuman and unscientific laws, such men are hanged, that is, judicially murdered; and the righteous man whose moral faculties are sound, and whose moral faculties are like an iceberg, says: "Serves him right; moral insanity, indeed! hang all such rascals; these doctors and scientists, by and by, will do away with all responsibility."

I will now define what I mean by a criminal neurosis. I have said that every man has it more or less, but some have so much

of it that they are hardly responsible for their acts. These are they that are begotten, conceived, born and brought up in crime, generally the offspring of depraved and debauched parents. They differ from the morally insane, inasmuch as they never had a sound, moral organization; their moral organization from their birth has been deformed; they never knew good; evil to them is good. They are as incapable of reasoning as a wild horse; they cannot recognize the rights of society; they are Ishmaelites—their hand is against every man. If they have controlling nerve power, they don't know how to use it, or if they do, they use it for their own vile ends. These men never regret an evil deed, because they see no evil in their act. They are a law unto themselves. They are only in a very slight degree removed from the lowest brute, either intellectually or morally. And these men we punish by hanging and whipping, &c. We treat them also as responsible beings, and still crime goes on, and the criminals still live in our midst. Then the righteous say: "Well, if he had listened to the voice of God, if he had listened to the teachings of religion, if he had controlled his evil desires, his evil passions, &c., he would have been a different man." Of course he would, but he didn't; he had no desire to do so. He acted exactly in accordance with his nature; he acted in obedience to his criminal neurosis, in obedience to his abnormal moral faculties; and for all the example it is to another of his sort, we might just as well hang a dog as hang such a criminal.

Gentlemen, you know, and I know, and all the world knows, that the only remedy that has been ever tried for the prevention of crime has been punishment, and this punishment has been meted out to all as if all were equally responsible for their acts. This, to say the least, was unscientific, and consequently unjust, and punishment, gentlemen, has been proved a failure for the prevention of crime, or for the cure of the criminal class of society. Crime continues, and the criminal classes continue.

There is no man recognizes more than I do, as I have already said, the right of society to enact laws for its own preservation. Moreover, I fully recognize the right of society to inflict pun-

ishment, even capital punishment, for crime if it thinks well so to do; but I deny the right of society to treat all criminals as if all were equally responsible, or as if all were to some degree responsible. If punishment has to continue, and I suppose it will, for the present at all events, I would have men punished, not according to the enormity of their crimes, but in accordance with the moral responsibility with which they have been endowed; and where I found an irreclaimable, an incurable criminal, I would treat him as I would an incurable maniac, and lock him up for life, not for punishment, but for the protection of society, and to put a stop to the procreation of such animals.

What next would I have? I would have the Legislature recognize the fact that poverty was the great *objective* cause of crime, and that if we must of necessity have different grades of society, if we must of necessity have poor, we must not of necessity have a pauper class, from which class, as a rule, springs the criminal classes. I would have the Legislature bend their whole energy to do away with pauperism, and thereby diminish crime and the criminal classes. But you will ask, how is the law to draw the distinction between the men of different mental organizations? How is a judge, before he passes sentence, to know a man's mental callibre or a man's moral faculties? Let the law once be made and the medical profession will soon provide men capable of doing that work. But we need not trouble ourselves too much about the question of criminals at present. There is not much prospect of the Legislatures of the present day troubling themselves about the matter. Such questions as these are rarely taken up by men of strong party proclivities. Besides we would have a strong power against us, the theologians and lawyers. You will naturally ask why, then, am I writing so much upon the subject? I answer, some men lay only the foundation; other men build thereon. I hope that in time these other men will appear and build upon the foundation that I have been trying to lay. But if I have no hope to get legislation upon the criminal class of society, I have strong hope of having legislation upon the question of insanity, if for no other reason than to put a stop to our judges making themselves ridiculous before

the whole world, in their different definitions of what causes irresponsibility in the insane. Could there be anything more absurd than to find a Judge in the Province of New Brunswick making a statement the very contrary of that made a few months before by "the Lord Chief Justice of England, "the Judge instructed the jury that unless there was an entire lack of knowledge to distinguish between *right* and *wrong*, they could not but find the prisoner guilty," the Lord Chief Justice of England said: "I coincide most cordially in the proposed alteration of the law, having been always strongly of opinion that, as the pathology of insanity abundantly establishes, there are forms of mental disease in which, though the patient is quite *aware* he is about to do *wrong*, the will becomes overpowered by the force of irresistible impulse." Here, gentlemen, is a difference, but is the Provincial Judge to be found fault with? I certainly think not; the fault lies with the Dominion Government for never having defined where responsibility terminated. I will now, for your information, and in support of my views, given before this Society three years ago, and for the information of our Legislature, quote the highest authority in England, both legal and medical. In *The Journal of Mental Science* (edited by Drs. Mandsley and Clouston) for April, 1878, page 22, is the following from the pen of David Nicolson, M. D., Deputy Superintendent State Criminal Lunatic Asylum, Broadmoor, England, "a bill introduced into the House of Commons in 1874, by Mr. Russell Gurney, with the view of amending the Law of Homacide led to the appointment of a committee, before which most important and hopeful evidence was given. The following evidence of Lord Justice Blackburn speaks for itself, and virtually displaces the legal dictum of right and wrong," "We cannot fail to see that there are cases where the person is not clearly responsible, and yet knows right from wrong. I can give you an instance. It was in the case of that woman of whom I was speaking, who was tried for wounding a girl with intent to murder. The facts were these: The woman had more than once been insane, the insanity being

principally brought on by suckling her child too long, which was the cause that had produced it before. She was living with her husband, and had the charge of this girl, of about fifteen, who lay in bed all day; she was very kind to her, and had treated her very well; they were miserably poor, and very much owing to that, she continued to nurse her boy till he was nearly two years old; and suddenly, when in this state, she, one morning, about eleven o'clock, went to the child lying in bed, aged fifteen, and deliberately cut her throat; then she went towards her own child, a girl of five or six years of age, of whom she was exceedingly fond, and the girl hearing a noise, looked up and said: "What are you doing?" "I have "killed Olivia, and I am going to kill you," was the answer. The child, fortunately, instead of screaming, threw her arms round her mother's neck and said: "No, I know you would not hurt your little Mopsy." The woman dropped the child, went down and told a neighbour what she had done, that she "had killed Olivia, and was going to kill Mary; but when the darling threw its arms round my neck, I had not the heart to do it." She clearly knew right from wrong, and knew the character of her act. For some little time after that she talked rationally enough, but before night she was sent to a lunatic asylum raving mad, and having recovered she was brought to be tried before me at a subsequent Assize. She did know the quality of her act, and was quite aware of what she had done, but I felt it impossible to say she should be punished. If I had read the deposition in Magnantin's case, and said: "Do you bring her within that?" the jury would have taken the bit in their own teeth, and said, "Not guilty on the ground of insanity," and I think rightly. She is well borne out by the following extract made from a statement sent to the Committee by the Lord Chief Justice of England (Sir A. Cockburn): "As the law as expounded by the Judges in the House of Lords now stands, it is only when mental diseases produce incapacity to distinguish between right and wrong that immunity from the penal consequences of crime is admitted. The present bill introduces a new element, the absence of power of self denial. I concur

most cordially in the proposed alteration of the law, having been always strongly of opinion that, as the pathology of insanity abundantly establishes, there are forms of mental disease in which, though the patient is quite aware he is about to do wrong, the will becomes overpowered by the force of irresistible impulse, the power of self control when destroyed, or suspended, by mental disease becomes, I think, an essential element of responsibility."

In the July number of the same journal (1875), page 258, is the following from the pen of Dr. Bucknill: "Responsibility depends upon power and not upon knowledge and feeling, and a man is responsible to do that which he *can* do; not that which he feels, or knows it right to do."

Well, gentlemen, no matter how you, or others, may differ with me respecting a criminal neurosis, and that a man's moral responsibility depends upon his mental organization, there are none of you, with such authority on my side as I have quoted for you, but will agree with me, that it is full time for us to have legislation upon responsibility in the insane. And that law should decide, as it has in England, that a person may know the difference between right and wrong, and yet be irresponsible for their acts, their will being overpowered, and their self control destroyed by the force of irrisistible impulse. Yes, it surely is time that this important question should be settled; it is time that the law should define where irresponsibility ends, and responsibility begins.

I have brought this evening, before you three distinct subjects for consideration. The first, as to how the Medical Schools shall provide means to give students clinical instructions upon mental diseases. Well, gentlemen, if your different Professors will come to some understanding amongst themselves, I will be happy to aid you in carrying out your plans. The second subject is with regard to the criminal class of society; strong as my convictions are upon the unscientific treatment of this class of society, I would not ask you to take any move in the matter at present. There are too strong prejudices to overcome; better wait till the people are better instructed in science, press-

ing the question at present would do more harm than good, at least that is my opinion. But with regard to the third subject, viz., to urge upon the Legislature the necessity of legislating on the subject of responsibility and irresponsibility in the insane. I ask you if you agree with me, that we require such legislation, to prepare petitions to the Legislature praying for legislation, and setting forth the reasons why our prayer should be acceded to. In fact that the law should be, "that a man is responsible for what he *can* do, not for that which he feels, or knows, it right to do." Or, gentlemen, if you see any more simple way to bring the matter before the Legislature, do so; but do something, if it were only to show, as scientists, we are alive to the necessity of some change being made in the law of lunacy.

Hospital Reports.

MEDICAL AND SURGICAL CASES OCCURRING IN THE PRACTICE OF THE MONTREAL GENERAL HOSPITAL.

Case of Compound Comminuted Fracture of Leg.—Amputation with Antiseptic precautions.—Recovery.—Under the care of DR. RODDICK.

(Reported by Mr. J. A. MCARTHUR.)

J. O. M., laborer, æt 22, a strong healthy young man of good physique, was admitted into the Montreal General Hospital, Oct. 8th., 1878, with compound, comminuted fracture of left leg, the result of direct violence. His family and personal history are good.

The history of the accident is briefly as follows:—

In the afternoon of above date the patient, with others, was engaged on ship board, hoisting a heavy plate from the hold of a steamer. It appears that when elevated about ten feet above patient's head, the chain sling attached to the plate lost its catch, the latter fell suddenly to the floor before sufficient time was given to get out of its way; and, from the nature of the accident, probably struck the limb directly with its edge.

On examination, (one hour after occurrence of accident) the

left leg is found crushed to a fearful extent, especially at a point corresponding to the lower part of middle third. Here a large area of surface is broken on either side, the soft parts greatly contused and lacerated, and the bones badly comminuted. Distal part of limb is cold and pulseless and freely movable in any direction. Tibia is broken into five or six small irregular pieces partly or wholly denuded of periosteum. The fibula is fractured at two points, probably about four inches from either extremity, the lower one being compound, the upper one not so, but isolated, as it were, from the common site of injury. He feels weak, and depressed; is slightly feverish; temp. 99·5° in axilla; pulse 85, small and soft; hemorrhage not over great.

At 5.30 P. M.. ether was given, and Dr. Roddick, assisted by the house surgeons, proceeded to remove the limb, Lister's antiseptic method being carried out to its fullest extent. The site chosen for amputation was a point about six inches below the knee, in close proximity to the lacerated parts, and within half an inch of the upper fibular fracture. The method adopted was a modified flap, the anterior flap made long by dissection, the posterior, short, and by transfixion. Esmarch's band was used to control hemorrhage. There was considerable difficulty in securing the vessels, and stopping primary oozing from the stump. The flaps were secured by catgut sutures, and the whole carefully inclosed in the Antiseptic Dressing.

9 P. M.—The patient is weak and depressed. Temp. 101°. Pulse, 92; suffers considerable pain; no inclination to sleep.

Oct. 9th., 12.30 P. M.—Passed a restless night; much pain in stump; morning, temp. 99°; everything looking nicely, and a fresh dressing applied.

10th.—Spent a fairly good night. Not much pain. Temp. 101°. Dressings are quite sweet. Stump looks well. A little oozing, chiefly serous. No inflammatory tension, dressed as before.

13th.—Spent a good night; feels comfortable, and is cheerful; temperature 100°; stump dressed as usual; looks very well; union seems to be progressing favorably; discharge

altogether serous; no bagging of pus, or tension anywhere; no signs of lymphatic trouble. Bowels only moved once since operation; ordered a mild aperient.

19*th.*—No serious symptoms have arisen; temperature running an almost uniformly normal course; digestive system not disordered. Stump looks very well; union has taken place between the flaps. Some superficial sloughing of anterior flap, but the granulations are healthy and vascular; posterior flap a little baggy, but the dressings are perfectly sweet; salicylic cream is now used.

22*nd.*—No change worth noting since last report. A little pus can be squeezed out, which, however, is antiseptic, as shewn by absence of odour, and by the microscope.

27*th.*—Dressed again to-day; stump in admirable condition; parts entirely closed throughout; no signs of tension or bagging anywhere; external surface is pretty raw, from superficial excoriation of the integument; temperature varies from 98 to 99°. Digestive system in good order.

29*th.*—(21st day). Ordered up. Antiseptic dressings discontinued and red wash applied.

Nov. 4*th.*—Has been going about in the sick chair; stump presents a fine healthy appearance; firm union of all the parts; cicatrix situated well behind. End of stump round, uniform and nicely healed over. Discharged.

Case of Malignant Epulis, demanding partial removal of the Superior Maxillary Bones.—Recovery.—Under the care of Dr. RODDICK.

(Reported by Mr. Thomas Gray.)

E. Z., aged 52, a French Canadian laborer, was admitted into the Montreal General Hospital in November of last year. He gave the following history: In the June previous he felt a severe pain in the second right molar tooth of the upper jaw. A small tumor soon formed round the tooth, which loosened and it fell out. The one next to this soon became affected in the same manner, and shared the same fate. The tumor continued to

grow until it reached its present condition, the growth being accompanied by a good deal of pain. It took two months to reach its present size, and the patient believes it has grown more during the last three months, being troublesome only from a hot tingling sensation.

He is a man of slight frame, is emaciated and cachetic looking; says he has been losing flesh for some months; general functions of body are fairly performed, excepting the secretion of saliva, which has been increased since the onset; cannot use solid food, mastication being so much interfered with.

A firm round movable and painless tumor is seen and felt over the region of the left submaxillary gland. It is now about the size of a small walnut, but has never been painful. A few of the cervical glands on both sides are enlarged slightly. A firm fungoid-looking growth occupies the outer and inner surfaces of the alveolar borders of the supra-maxillary bones, extending from the last molar tooth on the right side to the second molar on the left. It is also attached to the right half of the hard palate as far back as the left molar tooth, the anterior portion of the left half being also involved. There is no attachment to the mucus membrane of the upper lip. The mass is very vascular and bleeds freely at times, the slightest injury giving rise to hæmorrhage.

The removal of the tumor being determined on, the following operation was performed on the 25th November, 1878. The patient was put under the influence of ether and then placed in a semi-recumbent posture. Dr. Ross asssisted. The head being steadied, an incision was made through either cheek, beginning at the angle of the mouth and extending back a distance of two inches, and in a line corresponding to a point midway between the outer canthus and the external auditory meatus. The soft parts were then carefully dissected back as far as the incisions were made, and until the inferior margin of the nasal process of the superior maxillary bone was reached. This flap was held up and a narrow saw was introduced into the nares, and made to cut its way outwards and backwards to the angle of the bone on each side. On removal of this portion of bone thus cut out, formidable hœmorrhage ensued. This

was controlled by the application of ligatures to the vessels in the soft parts, and the actual cautery to those in the bone. All oozing being stopped, the soft parts were brought in situ, and retained by hare-lip needles and cat-gut sutures. At the close of the operation the patient was breathing freely; pulse 88, and regular, but small; was ordered some brandy, and was removed to the ward.

A microscopical examination of the tumor was subsequently made by Dr. Osler, who declared it to be epithelial in its character.

The patient was put upon an exclusively milk diet, with small quantities of stimulants. Four hours after the operation he was very comfortable, with a temperature of ninety-nine degrees, and a full and steady pulse of 72. He was ordered a mouth-wash of chlorate of potash, and the nurse was instructed to paint the glycerine of carbolic acid on the surface exposed by the operation.

From the notes we gather that everything went on most satisfactorily.

On the 11th December the discharge from the mouth is reported healthy, and small in amount; the free surface rapidly healing over. He sleeps well and has an excellent appetite. Altogether his general condition is everything that could be desired. The incisions through the cheeks united well by first intention, so that, excepting a slight falling in of the lip, no disfigurment of any moment, has resulted from the operation.

He returned to his home within one month after the operation, having gained flesh, and entirely lost that cachectic appearance which he presented on admission.

The enlarged sub-maxillary gland referred to in the early part of the report remained *in statu quo* and would have been removed but for the decided stand taken by the patient against any further operative interference. None of the other glands in the neighborhood appeared to be seriously involved up to the time of his discharge.

It is worthy of mention that the thermo-cautere proved itself to be absolutely indispensible as a means of arresting hæmorrhage during the operation.

Case of Compound Fracture of Radius and Ulna, treated antiseptically.—Under the care of Dr. RODDICK.

(Reported by W. H. BURLAND, M.D., Home Surgeon Montreal General Hospital.)

Christina McC., æt. 40, a short, slightly built woman, was admitted to the Montreal General Hospital on the 24th December, 1878, for an injury she had received to her right arm. In going down a flight of steps leading to the yard, she slipped and fell, striking her arm against the edge of a bucket. This occurred about twenty minutes before admission, and was followed by considerable hæmorrhage. Upon examination it was found that there was fracture of both bones of the right forearm, about 1½ inches above the wrist, also a wound through which the upper fragment of the radius could be felt and seen, rendering the fracture compound. There was considerable deformity present which had to be reduced, and as the case seemed a favourable one for antiseptic treatment, it was dressed according to Lister's plan, the wound having first been syringed out with a solution of carbolic acid, 1-20. The dressings were found to be a sufficient support for the fracture, and no splint was necessary. Considerable hæmorrhage soiled the dressings for the first two days, but no pus formed, and everything remained sweet. The dressings were changed daily for five days, then at longer intervals. The last one removed twenty-one days after the accident, had been on for six days. Very little pus formed at any period in the treatment, and the the wound was always perfectly aseptic in character.

21st Jan.—Wound is quite closed, and good firm union exists between the bones. Can flex and extend her fingers perfectly. No splint, other than the heavy dressing, had been used throughout. Discharged to-day, four weeks after admission.

Reviews and Notices of Books.

A Manual of the Practice of Surgery.—By THOMAS BRYANT, F. R. C. S., Surgeon to and Lecturer on Surgery at Guy's Hospital, &c., with six hundred and seventy-two illustrations. Second American from the third revised and enlarged English edition. Royal, 8vo. pp. xix, 945. Philadelphia: HENRY C. LEA, 1879.

This large volume is a reprint of the English edition (in two volumes) of Mr. Bryant's excellent Manual of Surgery. It is a little over two years since the second London edition of this work issued from the press, and we are called upon to notice this, the third edition, which has in many respects been improved, as extra matter has been added, and the engravings have been increased in number. Mr. Bryant's work is a fair exponent of British surgery, thoroughly practical in its teaching, a favorite text-book with student and practitioner, and one of the best of its kind. No material alteration has been made in the arrangement of the subjects under discussion in this edition, and Mr. Bryant gives the results of his own experience, which has been large, being that of one of the principal Metropolitan Hospitals. But while taking advantage of the experience gained at his own hospital, he does not ignore that of other institutions, and in statistical results he gives the published records of other hospitals both English and Continental. The fact of this manual passing through three editions in so short a time is an evidence of the appreciation of the work, and it is with pleasure we accord to it a full measure of praise. The American publisher has given us a handsome volume, printed on the best of paper with clear and well impressed type, and the engravings are in the best style of art.

The Principles and Practice of Surgery.—By JOHN ASHURST, Jr., M.D., Professor of Clinical Surgery in the University of Pennsylvania, &c., &c. Second edition; enlarged and thoroughly illustrated with five hundred and forty-two illustrations. 8vo., pp. 1040. Philadelphia: HENRY C. LEA, 1878.

This is the second edition of Prof. Ashurst's Manual of the Principles and Practice of Surgery, and the arrangement is the

same as that which he adopted in the first issue of the work. In the preparation of this work, as well as in its revision, the author has availed himself of the teaching of systematic writers on surgical science, and in special departments he has noted the observations of writers of surgical monographs, and in making use of the works of others due credit is given. He has spared no labour in rendering the work a worthy exponent of the subject under consideration. Every article has been carefully revised, and in making changes and alterations which became necessary, he has given much of his own personal observations and experience which he has gained as a clinical teacher and hospital surgeon. New material has been added, but in so doing he has judiciously avoided increasing the bulk of the volume; the number of pages has been but slightly added to. There is a most voluminous index of some sixty pages. This is always to our mind an excellent feature in the preparation of medical or surgical treatises, and is of the greatest advantage more especially in works of reference intended for the use of practitioners. Altogether the work before us will be found a safe guide to the student of surgery, and is also a handy book of reference for the busy surgical practitioner.

General Surgical Pathology and Therapeutics in Fifty-one Lectures; a Text Book for Students.—By DR. THEODORE BILLROTH, Professor of Surgery in Vienna. Translated from the 4th German edition and revised from the 8th edition, by CHARLES E. HACKLEY, A.M., M.D., Physician to the New York Hospital, &c. 8vo., pp. xx. 773. New York: D. Appleton & Co., 549 and 551 Broadway.

The work before us is a revised translation of the last edition of Billroth's work on Surgical Pathology. To Dr. Hackley is due the credit of having first given us an English translation of this treatise, which appeared early in 1871. Since then the New Sydenham Society assumed the publication of the work, and now we are in receipt of the very latest, being a revision of the previous translation by Dr. Hackley and corresponding to the eighth German edition.

The work, which gives a general *résumé* of surgical pathology and surgical principles, consists of twenty-one chapters, divided into fifty-one lectures. In the first chapter are considered simple incised wounds of the soft parts, to which is devoted nine lectures. Chapter second consists of a single lecture on some peculiarities of punctured wounds. Contusions of the soft parts without wound are dismissed in the third chapter; after which contused and lacerated wounds of the soft parts are taken up. Simple fractures of bone, open fractures, and suppuration of bone and injuries of the joints form the subjects of chapters five, six and seven, which occupy seven lectures. In chapters eight and nine gun-shot wounds, burns and frost-bites are given. Chapters ten to nineteen, in which will be found twenty-three lectures, are given up to inflammation and its variety of consequences. The subject of tumours is discussed in chapter twenty, divided into seven lectures, and in chapter twenty-one is a lecture on amputations, exarticulations and resections. There is an appendix in which will be found additions from the eighth German edition. These are numbered and are referred to in the text by corresponding numbers. The publishers have done their part well, the type is clear, paper of excellent quality, and the wood-cuts particularly good. In this respect we observe a number of additions which did not appear in the former issue. We commend this work to our readers. It is to be had at Dawson Bros., St. James street.

Extracts from British and Foreign Journals.

Unless otherwise stated the translations are made specially for this Journal.

Intermeningeal spinal Hæmorrhage simulating Strychnine-Poisoning.—E. L. DIXON, M.D., M.R.C.P., (Honorary Medical Officer to the Preston and County of Lancaster Royal Infirmary) says: On the evening of the 12th December, 1876, I was sent for in haste to see a grocer who had been suddenly taken ill. My patient was a tall and very powerful man of forty-nine years of age, who for the previous eight years, during which he had

been under my observation, had enjoyed remarkably good health, having merely suffered from some trifling accidents, and on one occasion from diarrhœa. He had been a farmer up to a year ago, when he had opened a grocer's shop in the town; he was somewhat intemperate, and his accidents had occurred when he was intoxicated; he was of active habits, and was accustomed to lift heavy weights. On this occasion he was taken ill at six in the evening, soon after which I saw him, about half an hour after his "tea." He had been suddenly seized with violent tetanoid convulsions, which continued to recur at short intervals. The body in a paroxysm became completely extended, with the neck, arms, and legs stretched out and stiff for a short time; comperative relaxation then took place, to be followed in two or three minutes by a return of the spasms, during which the patient, who was never unconscious, screamed from the pain which he said he experienced all over the body, but especially in the region of the heart. He asked not to be touched, for movement in any way brought on a return of the paroxysm. When anything was put into his mouth with a spoon, the jaw contracted forcibly upon it, and if swallowing was effected, it was in spasmodic gulps. The pulse, which with difficulty could be made out during a spasm, was in the intervals 74, and of good volume; the pupils during a paroxysm were not insensible, but somewhat sluggish and dilated.

As he was lying upon a stone floor in a back room without any accommodation, during a brief interval from convulsions an attempt was made to remove him to his house. He died, however, before he could be got there. The whole duration of his illness was less than two hours.

As the case presented a very suspicious ressemblance to one of strychnine-poisoning, I declined to give a certificate without a post-mortem examination, although in the most careful investigation I could discover no vestige of any inducement to suicide or murder, nor did it seem possible the poison could have been taken accidentally, for his last meal had been of his customary tea and bread-and-butter; moreover, no vermin or other poison was sold in the shop.

With the assistance of two medical friends I examined the body next day, about eleven hours after death. But neither in the head, chest, nor abdomen could we discover any cause for the sudden death ; indeed, all the organs seemed fairly healthy. We, therefore, removed the stomach with its contents tied up, and also portions of the viscera. We then turned the body into the prone position, and carefully opened the spinal canal, when we found the arachnoid cavity filled with black and coagulated blood ; there was no opening of aortic aneurism into the canal, and the man had never complained of pain in his back. No attempt was made, on account of the limited time at our disposal to discover the vessel or vessels ruptured. We considered that the extravasation was amply sufficient to account for his symptoms and death, and that it was unnecessary to proceed to the analysis of the contents of the stomach.

There are several points of ressemblance in this case to a case of strychnia-poisoning. 1. The symptoms supervened very suddenly, and within a short time (half an hour) after a meal, in a robust man apparently in perfect health. 2. The convulsions were not attended by loss of consciousness, as in ordinary epilepsy. 3. These convulsions, though certainly clonic, as indeed they are at first after the administration of strychnia, were accompanied with a great amount of rigidity of the limbs, which remained fixedly extended for some time during the height of each paroxysm. 4. There was præcordial or epigastric pain, probably depending upon spasm of the diaphragm, and also spasmodic trismus, which occurs in an early stage of strychnine-poisoning. 5. Though in some cases of strychnine-poisoning the patient asks to be rubbed in order that the cramp be relieved, yet in others the exalted polarity or reflex excitability of the cord manifests itself in the production of the paroxysm by the mere touching of the body, which was a marked feature in this case. 6. The rapidity of death, which occurred within two hours from the beginning of the attack and within two and a half from his last meal. In many cases of poisoning the duration is, however, much less than two hours.

In the various standard treatises on medical jurisprudence I

find no mention of spinal apoplexy or spinal hæmorrhage simulating strychnine-poisoning. Epilepsy, hysteria, myelitis, and cerebro-spinal meningitis are briefly alluded to, but tetanus is considered to be the only disease with which the symptoms produced by strychnine are at all likely to be confounded. Tetanus, however, is comparatively chronic, and may, as a general rule, be easily discriminated from strychnine-poisoning except in cases where the poison has been administered in frequently repeated small doses.

In this case the post-mortem clearly showed the cause of death, but I am by no means convinced that rapidly fatal illness might not occur without such marked appearances, and might closely resemble a case of strychnine-poisoning.—*The Lancet.*

Salicylate of Soda in Rheumatism.—The following are the conclusions by Marrot—*Archives Générales de Médicine*, February,—as to the action of Salicylate of Soda in rheumatism :

1. During the course of acute articular rheumatism, there is a notable diminution in the quantity of urine, the proportion of uric acid increasing, and the increase is not explained by the lessened urine,—it is an absolute increase.

2. In cases of acute articular rheumatism left without treatment, the cure is characterized by a notable increase, during some days, of the quantity of urine, and by the return of uric acid and of the urea to the normal proportion.

3. Salicylate of soda given early in acute articular rheumatism, in some way hastens this natural crisis. One or two days after its administration, the urine becomes very abundant, clear and of slight density. There is a relative polyuria ; the quantity of uric acid and of urea is much lessened. It is an interesting fact that these modifications of the urine occur independently of any change in temperature.

4. In the cases of chronic articular rheumatism, the quantity of uric acid and of urea is rather diminished. Here the salicylate of soda has no useful result. If a patient with

chronic rheumatism be subjected to hot baths, the quantity of uric acid contained in the urine is notably increased. Hence, as Professor Lasègue has shown, such baths are exceedingly useful in chronic rheumatism.

5. The salicylate of soda, as well as the hot bath, does not increase the *aglobulie* peculiar to chronic and acute articular rheumatism.

6. During the course of either acute or chronic articular rheumatism, the quantity of phosphoric acid is lessened and so remains whatever treatment may be employed.—*American Practitioner.*

Notes on sewer-gas poisoning—J. BROWN, L.R.C.P. Lond., etc., (Medical Officer of Health to the Bacup Local Board), says: In the Journal for November 16th there was an interesting paper, by Mr. Trend, on sewer-gas poisoning. During the past few months, I have made a number of observations on the same subject, as they confirm his opinion, and also give other effects of sewer-gas poisoning. I have notes of thirteen houses, in which there were grave sanitary defects. In seven houses, the slop-stone pipe was untrapped, and went straight into the drain, and from which there arose bad smells, especially in the hot weather. In the remaining six, there were untrapped and rubble drains, which were close to the door of the house, or passed beneath the floor.

1. *Submaxillary abscess*, and *enlarged cervical glands*, in children aged two and five years respectively. There were untrapped slop-stone, and bad smells from a rubble drain.—2. *Cervical abscess* in a child, aged nine years, probably due to bad smell from defective drain.—3. *Axillary abscess* and "*summer-diarrhœa.*" The child, aged five years, also had other enlarged glands in the axilla and elbow. Diarrhœa occurred in a patient aged six weeks. Another child had recovered from a submaxillary abscess. There were bad smells from untrapped slop-stone and defective drains.—4. *Two cases of inguinal abscess* and *summer-diarrhœa.* One of twins died from exhaustion, due to inguinal abscess, and the other from diarrhœa. The

mother recovered from *inguinal abscess*, the cause being an untrapped slop-stone-pipe.—5. *Facial abscess* in a girl, aged nine years. This was probably due to sewer-gas from an untrapped slop-stone pipe.—6. *Pelvic abscess*, and three cases of "*summer-diarrhœa*." A patient had been confined six weeks. She was very anæmic, and had no appetite. This was due, undoubtedly, to the bad smell in the house. She was taken ill with an abscess in the pelvis. Just at the same time there were three other cases of summer-diarrhœa in the house. The infant died. For the sake of the woman, I recommended that the family should remove at once, which they did, and the patient made a good recovery. The abscess discharged itself *per vaginam*. The cause was a defective privy, from which there was a continual leakage of fæcal matter into the house.—7. *Multiple abscesses*. A baby, aged six months, had twenty abscesses, scattered on its legs, arms, and body. This state was due to bad emanations from a defective privy. The privy was at once altered at my suggestion, and the patient speedily recovered.—8. *Temporal abscess* in a patient aged eleven years. The cause was foul emanation from a defective drain.—9. *Typhoid Fever*. A death from typhoid fever being reported to me, I inspected the house and found that bad smells came from the untrapped slop-stone pipe.—10. *Typhoid Fever*. Another death from typhoid fever was reported. On inspection, I found the slop-stone untrapped, and an untrapped drain close to the door.—11. *Typhoid Fever*. This was a case of typhoid fever in a gentleman living in a new, well-built house. On inspection, I found the drains and slop-stone trapped. The wife, however, complained of bad smells coming from the water-closet, which was on the first floor. The water-supply in the summer being limited, the drain could not be well flushed. The mephitic gases, generated in large quantities in hot weather, would soon saturate the water in the pan of the water-closet, and pass into the house. The drain was long and unventilated; and the sewer-gases, being of lighter specific gravity than the air, would seek an outlet at the highest elevation, which would be the water-closets. The drain has since been ventilated. The patient died.—12. *Diphtheria*, and three

cases of *Sore throat.* A child, aged three years, had diphtheria, and died in three days. In the same house, there were three adults suffering from sore throats, all of whom recovered. I found that there was a bad smell from untrapped slop-stone.—13. *Puerperal Septicæmia.* The third day after confinement, the patient had usual symptoms of septicæmia. She nearly succumbed two or three times. After about five weeks, she had a relapse, which proved fatal. In this case there was a foul smell from an untrapped drain, within a few feet of the door, where the patient was confined.

REMARKS.—It is difficult to state definitely the cause of many diseases. In some of the cases given above, it may be a coincidence, and sewer-gas may not have been the cause. Though I think in most, if not in all, sewer-gas was the chief factor, I would not say positively typhoid fever can be generated *de novo* from sewer-gas; yet my experience goes to prove that much may be said in favour of it.

Summer-diarrhœa, especially in infants and young children, I believe, is often due to sewer-gas. In the summer, decomposition of sewage is very rapid. Infants who are nearly all day indoors in houses in which sewer-gas exists (and there are, unfortunately, a large number among the poor) soon get diarrhœa. Of course, there are other things to produce it.

Diphtheria and sore throats are often due to sewer-gas. House No. 12 seems to prove that the poison which generated diphtheria in the child, in the three adults caused bad sore throats. Several cases of death from puerperal fever have occurred, generally in houses which are subject to bad sanitary arrangements, especially as regards drainage and ventilation. I have had a large number of abscesses in children during the past summer. In nearly every instance there were strong reasons to believe it to be due to sewer-gas. As a rule, if two or more persons in a house are suffering from summer diarrhœa, or abscesses, we may suspect sewer-gas. Sewer-gas is especially dangerous to children. Older persons may resist its influence; but in them it will probably be the cause of anæmia, nausea, and headache. In the winter, when the decomposition of sewage

matter is far less active than in the summer, I have found that infantile diarrhœa and abscesses are very few when compared with the number of cases occurring in the summer months.—*British Medical Journal.*

On the Treatment of Diseases of the Colon.—Dr. Dubois enumerates the diseases of the colon in which the injection of large or small quantities of water is indicated. He then adds some practical hints on the different ways of administering the fluid. There are two different kinds of enemata employed. First, the simple enemata, which are used in cases of constipation, when it is found necessary to remove fæcal masses from the sigmoid flexure, the cæcum, or the rectum, in cases where the mucous membrane of the rectum is diseased, and it is indicated to bring it into contact with water or medicine; secondly, very large enemata, which will be found efficient in cases where the water ought to be injected high up into the large intestines, whenever there exists a catarrhal affection of these portions of the intestines. Some patients can bear, without incurring pain or danger, enemata of 1,000 to 1,500 cubic centimetres of water, but in others such a large volume of fluid would either prove very dangerous to the intestines, or could not be injected on account of the great irritation of the intestinal muscles. In such cases, where it is of obvious necessity to inject a large bulk of liquid, the author advises the following method. Tepid water is injected till the patient feels a violent strain. The syringe is then removed, and the patient slowly changes under the bed-clothes from his right or left side to crouching on his knees and elbows. After one or two minutes the former position is again assumed for a short time, and then the patient lies down upon his back. The same operation and changes of posture are then repeated, and defæcation generally ensues in about ten minutes or half an hour after the injection has been given. This method is indicated: *a*, in cases of constipation where purgatives and the usual enemata can either not be given or have proved powerless; *b*, in cases of coprostasis where fæcal tumors, varying in size, can be felt in the

cæcum or other parts of the large intestine, and have sometimes been mistaken for ovarian cysts. Here purgatives given by the mouth are either vomited or have no effect; *c*, it is well known that inflammations of the vermiform process are mostly caused in healthy individuals by accumulation of fæces. Whenever, therefere, a slight tenderness and increased resistance are felt in the iliac region, especially in persons who have suffered from typhlitis before, a bulky injection will be found very useful in preventing the inflammation and removing the fæces. Narcotics should also be used in these cases; *d*, in cases of general or local peritonitis, when constipation and accumulation of gases in the abdomen have been produced by paralysis of the intestinal muscles; *e*, in cases of diarrhœa caused by constipation or accumulation of fæces; *f*, in abscesses of the intestines, dysentery, etc. (*Schweitzer Correspondenzblatt Memorabilien*, 1878, ix. Heft.)—*The Practitioner.*

The pathology of rodent ulcer.—An interesting discussion on the nature of rodent ulcer took place recently in the London Pathological Society. The discussion was raised by the Drs. Fox, who presented microscopical specimens to the meeting and stated that their investigations had led them to take different views concerning rodent ulcer from those advocated by other observers. Thiersch distinguished two kinds of epithelial cancer, the ordinary penetrating epithelial cancer, and the flat epithelial cancer; the latter being identical with the rodent ulcer of English writers. He was the first to insist on the epithelial nature of this affection. He bases his opinion that there are two kinds of epithelial cancer of the skin mainly, if not entirely, on the histological evidence, and considers it probable that the cell-masses in rodent ulcer take their origin in the sebaceous glands, because the general shape of the masses ressembles that of the glands, and because they are often found near a hair. He does not, however, find any direct evidence of the origin of the cell-masses from the glands. On the other hand, Verneuil published in 1848 a case in which ulceration of the face was produced by a cell growth, which he

believed to have begun in altered sweat-glands. Thiersch and Thierfelder have also both described undoubted fatal cases of adenoma of the sweat-glands. It can hardly therefore be doubted that adenoma of of the sweat-glands constitutes a variety of cancerous disease. In four cases of rodent ulcer, Dr. Thin was not able to trace the disease directly to any of the epithelial structures of the skin, but in two of his cases he found the sweat coil the seat of a new growth. From this, and from the resemblance of his cases to Verneuil's case, he was led to infer that it is highly probable that the cell-masses of rodent ulcer originally begin in the sweat-glands. He points out that the cells in rodent ulcer differ from those of epithelial cancer, strictly so called, never taking on the characteristic changes of the latter. His view, that in rodent ulcer we have a true adenoma to deal with, he believes to be strengthened by the fact that he has demonstrated a membrana propria between the cell-masses and the connective issue.

The Drs. Fox, on the other hand, say that rodent ulcer is an epithelial growth which takes its origin from the external root-sheaths of the hairs, that is to say, from a purely epidermic structure. In the discussion on their paper, Dr. Thin declared that the specimens presented were specimens not of one disease, as the Drs. Fox believed, but of two distinct diseases, some of them being preparations of ordinary epithelial cancer, and others of rodent ulcer. This wide discrepancy in the interpretation of the appearances naturally rendered the discussion unprofitable, except in so far as it has aroused attention to the questions whether there are two distinct kinds of epithelial growth producing cancer of the skin, and whether it is possible to distinguish them microscopically. We may expect before long to have this question definitely settled.—*The British Med. Journal. Medical Record, N. Y.*

The treatment of Acute Obstruction of the Bowels.—Writing on obstruction of the bowels, Dr. T. C. Allbutt says, in the *British Medical Journal.*—Let us dispose hastily of all cases of essentially chronic obstruction. They rarely need heroic action or great presence of mind either

in physician or surgeon. We thus clear our way to the essentially acute cases; and we have found that in these inflammation always counts for something, generally for a good deal. Now, whether we know exactly how to deal with the main cause or not, we always know how to deal with the inflammation; and except in the extremest urgency, our first duty is to simplify our case by lessening this. Unfortunately, means are often used which tend rather to aggravate the enteritis, and of all these, injections into the bowel are the most mischievous. Even in the case of fecal accumulation, it is not the fecal mass, but the inflammation set up by it, to which the explosion is due, so that even in these cases it is wild practice to pump into the inflamed bowel and to drag the patient hither and thither in bed. Even for diagnostic purposes, enemata are rated far too highly, and are rarely of much service. Clearly, it is our duty to reduce our case by complete rest, opiates, formentations, and a leech or two to the abdomen, or anus until the enteritis subsides, and then we can deal as we see fit with its cause. But if enamata are abused in fecal accumulation, wherein they are chiefly valuable, what are we to say of the fashion of forcing their employment in cases of internal strangulation? It is certainly conceivable that an intussusception may be unfolded by a forcible and ample injection, or by the insufflation of air, but to force air or water against a knotted or snared loop of intestine is surely outrageous meddling. And yet I have never been called into a case of such obstruction without finding that such a measure has been assiduously employed, to the harassing of the patient, to the aggravation of the symptoms, and to the increase of inflammation around the stomach. I believe no formula can be drawn from our experience of more value than this, namely, that if rest in every way be sedulously enforced, and the inflammation which palsies the bowel be carefully combated by the use of sedatives, such as opium and belladonna, and other means, cases of obstruction of the bowels tend to recovery.

Medical and Surgical Reporter.

Jaborandi in the Albuminuria of Pregnancy.—Dr. Langlet, of Rheims, publishes an elaborate account in the *Union Medicale de Nord-Est* of a case of albuminuria during pregnancy which he treated successfully by the administration of jaborandi. The patient, three months advanced in pregnancy, showed the ordinary symptoms of albuminuria. The action of the jaborandi on the salivary glands became apparent on the day of administration. The patient took the drug continuously for a period of sixteen days, during which time the œdema disappeared, and the general symptoms were improved. The albumen was likewise lessened to such an extent that not the slightest trace could finally be detected, and the lying-in occurred under the most favorable circumstances.

Dr. Langlet has noticed that the administration of jaborandi caused an increase in the urinary secretion, and this coincides with a somewhat similar observation of Mr. Render, who found that in a case of acute nephritis the drug caused polyuria. On the fifteenth day of the administration of the drug hæmaturia occurred, so as to give the urine a disagreeable odor and bright color. This accident, which did not retard the recovery, is to be attributed to the excessive work imposed upon the kidneys by the increased secretion, leading to congestion, and the congestion to actual hemorrhage.—*Edinburgh Medical Journal.*

Pruritus Vulvæ.—Dr. Mendenhall recommends (*Obstetric Gazette, Dec.*, 1878) :

℞. Sodæ biborat . . . . . ʒ i
Plumbi acetat. . . . . ʒ ss.
Tr. opii. . . . . f ʒ j.
Aquæ destil. . . . . f ℥ viij.

M. Sig.—Soak clothes in the solution and lay them upon the external parts affected, between the labia, etc. Keep the clothes freely wetted. Inject one ounce of the solution into the vagina several times a day. When the pruritus has been subdued, apply a solution of carbolic acid in glycerine (gtt. xx. to f ℥ i.) once or twice daily.

Chrysophanic Acid.—A writer in the *Chemist and Druggist* says: Chrysophanic acid ointment has been much vaunted as a remedy for psoriasis, but it is so very irritating that it requires great caution in its use. The first case in which we saw its effects was in hospital practice. A woman with psoriasis about the arm and shoulder was told to apply the ointment, but returned much disgusted, in a day or two, to say that her linen was spoiled, and it was found stained of a deep, dark purple color, and, in addition, there was severe erythema extending from the seat of disease up the arm. The ointment was discontinued, and the irritation soon subsided. In another case the ointment was applied to a patch over the knee; it caused erythema all around the part affected, and gave rise to conjunctivitis, which lasted two or three days, but in each case the local disease was removed. It is also said to turn the hair a peculiar purplish-brown tint and to stain the skin, but Dr. Balmanno Squire states that this may be removed by benzol.—*Medical and Surgical Reporter.*

Abnormal Lowness of Temperature and its Dangers.—Whilst increase of temperature occuring in various morbid conditions is always carefully noted, deviations in the opposite direction are seldom alluded to. In an inaugural dissertation published at Berne, Dr. Glaser points out that instances of this latter phenomenon are more common than is usually supposed, that a temperature between 34° and 35° C. may be frequently met with, and that a fall below 30° C. is not very rare. Low temperatures are not indicative of danger, to the extent commonly supposed; recovery has been known to take place after temperature of 24° to 26° C. The danger in any given case is to be estimated not only in the fall in temperature, but mainly by a reference to the causes to which it is due; and the variations in temperature, often great and occurring under normal conditions, must be taken into account. Dr. Glaser also points out that subnormal temperatures do not always accompany relapse, but that the two conditions may occur quite independently of each other—(*Med. Examiner*, Aug. 8. 1878.)—*The Practitioner.*

Causation of Septicæmia.—M. Colin, of Paris, read before the Academy of Medicine in that city a paper on the above subject, of which the following is a résumé (given by the London *Medical Record*): "Putrid material, according to its quantity and degree of alteration, exerts a variable action on the animal organism. In a large dose it determines a rapid and invariably fatal poisoning, which causes no marked alteration in the blood beyond a tendency to incoagulability, and is not associated with the reproduction of proto-organisms. In cases of this kind the injected fluid fails to communicate any kind of virulent property either to the blood or to any other juice of the economy. In reduced quantity the animal fluid gives rise to an adynamic febrile condition, which varies in intensity according to the nature of the animal. If this condition proves fatal, it is so through the production of visceral lesions, and through changes in the blood. Reproduction of proto-organisms takes place, at least in those parts where the putrid agent has been deposited, and frequently throughout the whole mass of the blood. Certain putrid fluids that have not undergone much alteration, such as blood mixed with products of intestinal transudation, decomposing blood of an animal affected with carbon, peritoneal serosity removed some time after death, may alone, when injected in extremely minute quantities, determine septicæmia transmissible by inoculation, after the manner of the majority of virulent affections. Here there is always virulence of the fluid and reproduction of the proto-organisms introduced from without."—*Med. and Surg. Reporter.*

Tape-Worm in Cucumbers.—At a late meeting of the Academy of Sciences of Philadelphia, Prof. Dr. Leidy exhibited a specimen of tape-worm found within a large cucumber. This specimen was a true tape-worm, but of an unknown species, the ovaries being confined to the anterior extremities. —*Medical Record. N.Y*

CANADA

Medical and Surgical Journal.

MONTREAL, MARCH, 1879.

THE REGISTRATION OF BRITISH QUALIFICATIONS

The Medical Council of the Province of Ontario has been compelled to recognize a diploma submitted from the University of Edinburgh, and to register the applicant, Dr. Baldwin of Toronto, on the payment of the registration fee, without examination. This is quite in accord with an opinion expressed in this journal years ago, when first this unholy Act was hatched. That it was an outrage to the Profession as a whole and unconstitutional, was an opinion expressed at the time by high judicial authority in Ontario itself, and we doubt much if the act would be effective in excluding from registration any graduate holding a diploma from a recognised University possessing a Royal charter. We have all along been under the impression that our Colonial Universities could claim registration for their Graduates, such institutions at least that hold Imperial charters, and we cannot conceive why it should be otherwise. We have always opposed the degradation of our own universities. If the examiners in those institutions are untrustworthy, or inclined to do their work in a slovenly manner, then should they be deprived of their function and replaced by better men. We hold that it is this very system of belittleing our own institutions which has deprived us of that recognition in Great Britain which is desirable. It is not to be expected that the Medical Council of Great Britain will recognize a Colonial Diploma that is not recognized in its own country. The entire system appears to us to be faulty, and we must cast about for some other method

if we would obtain from other countries an acknowledgment of our professional status.

With regard to the proposal on the part of the members of the Executive Committee of the Medical Council of Ontario, and their request, to be granted the privilege of exacting a very high fee to check-mate this action of the Universities, it is so very peculiar that we have not been able to digest it sufficiently to make any remarks thereon. Its modesty is very refreshing. We have no doubt that in course of time their request will be granted, and that the profession of Ontario itself, with all its liberality, will ultimately be brought to believe that their best interests lie in littleness, exclusiveness and puffed up self-importance.

ACCIDENT TO DR. HENRY HOWARD.

We are sorry to learn that our old and respected friend Dr. Henry Howard met with a serious accident by which his left arm was broken near the shoulder-joint. In proceeding to the Longue Pointe asylum, of which institution the Doctor has professional charge, his sleigh was upset, and he fell heavily on his left side and sustained a fracture of the humerus at the surgical neck; an accident of this nature occurring in a man of Dr. Howard's age, was regarded with anxiety by his friends; we are happy to announce, however, that the Doctor is fast recovering, and that with his accustomed zeal and energy he will soon be at his work again. The following resolution was passed at a late meeting of the Medico-Chirurgical Society, over which Dr. Howard presides:

Moved by Dr. KENNEDY, seconded by Dr. RODDICK, and carried unanimously:

"That this Society has learned with great regret of the serious accident which has happened to their respected President, Dr. HENRY HOWARD; That the Secretary be instructed to convey to Dr. HOWARD the sincere sympathy of the Society, and the gratification it will give to see him once more in his accustomed place. That this Society has learned with pleasure of the action of the Local Government authorities in at once appointing an assistant to relieve Dr. Howard from the anxiety of his charge."

AMERICAN HEALTH PRIMERS.

The well known publishing house of Lindsay & Blakiston, Philadelphia, have undertaken the publication of a series of works written in a popular style, for the purpose of diffusing a knowledge of sanitary science. The subjects discussed in each volume are of the very highest practical importance to communities, as well as to individuals, and we have no doubt that this worthy attempt will meet with very general approval. As a rule in this country, the subject of sanitation is not as fully recognized as its importance demands. Public health associations are doing good work, and the results are beginning to tell in a marked improvement in the comforts of life and the lessening of disease. Sanitary legislation is as yet unknown in this Dominion, nor has it attained that prominence amongst our neighbors which it deserves. In the announcement of these volumes, by the publishers, the hope is expressed that "the American Health Primers may assist in developing a public sentiment favorable to proper sanitary laws, especially in our large cities." This sentiment we fully endorse; but in our own country we trust that if any sanitary laws are introduced their application will be general and not restricted to our large cities. We regard all sanitary matters to belong to the central government of any country, constituted as is our Dominion. Local enactments and provincial regulations are all well enough in their way, when they affect alone the comfort of local communities; but matters which affect the sanitary condition of an entire nation should be alone dealt with by the parent government.

The Canadian statesmen who in the future will introduce and carry through the House of Commons at Ottawa a comprehensive Public Health Act will be a great benefactor to the community at large. It is true that several Acts are on our statute books bearing on sanitary science, so that we are gradually getting in the thin edge of the wedge, and probably before the termination of another century, when we may have men at the

helm of state, independent as to means, and above party srtife; men of pure and unsullied honour, not party or purity men, alive to every chance of turning a penny, be it honestly come by or otherwise, then may we hope for some devotion to the subject of sanitary science, and some legislative enactments which will reduce very considerably our present heavy mortality rates. It is for the very purpose of educating the masses to the importance of these subjects that the publishers have undertaken the issue of these volumes. We give below the scheme proposed:

"Dr. W. W. Keen has undertaken the supervision of the series as editor, but it will be understood that he is not responsible for the statements or opinions of the individual authors.

The following volumes are in press and will be issued about once a month:

I. HEARING, AND HOW TO KEEP IT. By Charles H. Burnett, M.D., of Philadelphia, Surgeon in charge of the Philadelphia Dispensary for Diseases of the Ear, Aurist to the Presbyterian Hospital, etc.

II. LONG LIFE, AND HOW TO REACH IT. By J. G. Richardson, M.D., of Philadelphia, Professor of Hygiene in the University of Pennsylvania, etc.

III. SEA AIR AND SEA BATHING. By William S. Forbes, M.D., of Philadelphia, Surgeon to the Episcopal Hospital, etc.

IV. THE SUMMER AND ITS DISEASES. By James C. Wilson, M.D., of Philadelphia, Lecturer on Physical Diagnosis in Jefferson Medical College, etc.

V. EYESIGHT, AND HOW TO CARE FOR IT. By George C. Harlan, M.D., of Philadelphia, Surgeon to the Wills (Eye) Hospital.

VI. THE THROAT AND THE VOICE. By J. Solis Cohen, M.D., of Philadelphia, Lecturer on Diseases of the Throat in Jefferson Medical College.

VII. THE WINTER AND ITS DANGERS. By Hamilton Osgood, M.D., of Boston, Assistant Editor Boston *Medical and Surgical Journal*.

VIII. THE MOUTH AND THE TEETH. By J. W. White, M.D., D.D.S., of Philadelphia, Editor of the *Dental Cosmos*.

IX. OUR HOMES. By Henry Harthshorne, M.D., of Philadelphia, Formerly Professor of Hygiene in the University of Pennsylvania.

X. THE SKIN IN HEALTH AND DISEASE. By L. D. Buckley, M.D., of New York, Physician to the Skin Department of the Demilt Dispensary and of the New York Hospital.

XI. BRAIN WORK AND OVERWORK. By H. C. Wood, Jr., M.D., of Philadelphia, Clinical Professor of Nervous Diseases, University of Penn., etc.

Other volumes are in preparation, including the following subjects:—"Preventable Diseases," "Accidents and Emergencies," "Towns we Live In," "Diet in Health and Disease," "The Art of Nursing," "School and Industrial Hygiene," "Mental Hygiene," etc., etc. They will be 16mo in size, neatly printed on tinted paper, and bound in paper covers. Price 30 cents; flexible cloth, 50 cents.

Medical Items

It is with pleasure we give space to the following letter received from Dr. Roddick, to whom, at least, is due the credit of having first introduced the antiseptic method of Lister into this city.

Montreal, March 9th, 1879.

DEAR MR. EDITOR.

In a paper on "Listerism," which I read at the last meeting of the Canadian Medical Association, and which was published in part in the February number of your Journal, I make the statement, open to correction however, that the practice of Lister was first introduced into Canada through the Surgeons of the Montreal General Hospital. Immediately after the publication of the paper, I received the following letter from my esteemed friend Dr. Mack, of St. Catherines, which, in justice to him, I beg you will have the kindness to publish :—

GENERAL AND MARINE HOSPITAL,
St. Catherines, Ont., March 5th, 1879.

MY DEAR DOCTOR.

The antiseptic treatment was first established in this hospital immediately after the details of the process had been promulgated by Dr. Lister, and fully one year before it was tried in Montreal. I can furnish you any evidence you may demand of the fact.

As to the results, they have been very satisfactory.

Yours faithfully,

THOS. MACK.

I can only say I am delighted the "System" has found such an able advocate, and I trust the day is not far distant when the profession will be favoured with the results of Dr. Mack's experience.

Yours truly,

T. G. RODDICK.

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CANADA

MEDICAL & SURGICAL JOURNAL

APRIL, 1879.

Original Communications.

VALEDICTORY ADDRESS;

TO THE GRADUATES IN MEDICINE AND SURGERY,
McGILL UNIVERSITY,

Delivered at the Annual Convocation held on the 31st of March, 1879

BY GEORGE E. FENWICK, M.D.,
Professor of the Principles and Practice of Surgery.

GENTLEMEN GRADUATES,—The time has arrived when the relations between us as teacher and student must cease. Steady and persevering industry, which has marked your career throughout your pupilage, has now been crowned with sucess, and you have been admitted into the antient and honourable fraternity of medical and surgical practitioners. In offering the congratulations of this Faculty on this auspicious occasion, it becomes a pleasing duty to add a few words of counsel and advice touching the duties you have assumed as well as concerning the career which we all hope you will follow with success in tne business of your lives. Ponder well on the important nature of those duties, for they are nothing less than the care and guidance of your fellow-men under the most trying circumstances. Duties of the greatest interest to the public as well as to yourselves, and for the faithful performance of which you will be held to strict account. Your career will be narrowly scrutinized, as to your keeping is entrusted the credit and

reputation of our Alma Mater. We are members of one family, and disgrace or discredit falling on any one member must be felt by all. There are a few suggestions that may not be considered out of place, and which will, if followed, conduce to your personal comfort and to success in your career. Attend strictly to your own health. Bacon remarks that a "sound state of health begets a natural vigour of the faculties." No class of men require a larger share of bodily vigour than physicians. Who more exposed to the baneful influence of malaria, or the germs of contagious or infectious disease than the physician. In epidemic visitations, whilst other classes of the community can seek protection, by isolation or abandonment of localities infected, physicians are called upon to remain and risk their lives in the service of others. With the heroism and pluck of the soldier they forego all considerations, join the forlorn hope, and advance to the breach with unswerving faithfulness.

> Theirs not to make reply,
> Theirs not to reason why
> Theirs but to do and die.

Need I refer in proof of this to the recent scourge of yellow fever in the Southern States, when over eighty medical men perished in giving succor to their fellow man. All honour to their memory. Such is the position that each one of us may at any moment be called upon to assume, and as sanitarians we know that strict obedience to the laws of health will aid us in resisting the baneful influence of disease. But again, your vocation is to advise and direct others how to preserve their health, and in so doing you will be expected to know how to care for your own.

I must caution you against the baneful influence of the cup of bitterness. As physicians you are all fully aware of the evils of intemperance, how it beclouds the mind renders helpless the body, and leads to disease and early death. The physician, of all other men, should be at all times in full possession of his faculties, as at any hour of day or night he may be called upon to render assistance, where the life of a

fellow-man is at stake. Under such circumstances the public will fully endorse the sentiment of Hamlet:

> "Give me that man
> That is not passion's slave, and I will wear him
> In my heart's core."

In this particular I should advise you to adopt the motto of Othello:

> "I have very poor and unhappy brains for drinking. I could well wish courtesy would invent some other custom of entertainment."

Another duty to yourselves is to keep pace with the rapid advance that is being made in medical and surgical science. The practitioner who is content with what he has learnt during his pupilage, will soon fall behind, and rightly earn the contempt of his fellow-man. Idleness should be no feature of the honest and true physician; though you cease to be pupils, you must still be students, as your life should be devoted to observation and reflection. Take stock each year of what you have acquired, and see to it that you have added to your store. To your patients let integrity be your password, truthfulness your breastplate, gentleness and sauvity, with forbearance yet firmness, your guiding-star. Harshness and want of sympathy in the ills of others, will not tend to elevate you in the esteem of your fellow-man. Seek not success through any other channel than close attention to the business of your calling. It is your privilege to relieve suffering, and, under heaven, to save life; close attention, with a full measure of judgment, and putting in force the practical knowledge acquired at the bed-side in the hospital ward, will be certain of success. In any severe case, where you are in doubt or perplexity, if you have any fear of the correctness of your own judgment, seek the assistance and advice of a brother practitioner of larger experience than your own. Never refuse your aid because of the uncertainty of receiving remuneration, be generous to the poor, remember the words of our blessed Saviour, "Forasmuch as ye did it unto the least of one of these my brethren, ye did it unto me," and your reward will be sure. The physician is the custodian of many

family secrets. He is the friend in adversity, the counsellor in time of need. If mishap or disgrace invade the family circle the trusted physician is the first to be consulted. How necessary then for the full exercise of discretion and retinence. How dangerous is the babbler. Remember then the oath you have this day taken; cautiously, honestly, with prudence and chastity pursue your honorable calling.

I may here remark that a proposal has come semi-officially to the profession of this Dominion to join the ranks of the British Medical Association by becoming members of that Society. The objects of that Society are in every way beneficial to the best interests of the profession, the advancement of scientific knowledge, and the elevation of the standard of medical education. I have no doubt the proposal will be seriously entertained by the profession of the Dominion at the next annual meeting of the Canada Medical Association, to be held in the city of London, Ontario, in September next. It is very desirable that the profession in this country should receive that recognition from the institutions of the Mother Country which is its due. It would appear as though the dawn were breaking in our clouded horizon, and although we may not expect to be placed on the same footing as the older institutions of Great Britain, we may hope that we will not continue to occupy the anomalous position we do at present. My chief object in referring to this matter is to call your attention more especially to the existence of this our national association, to which all members of the profession ought to belong. But more than this, it is much to be desired that branch societies should be established in all the sections of this country. We must be up and doing; medicine is a progressive science; there is a large field open to each one of you for observation, and in observing remember that you must not hide your light under a bushel, but seek to emulate the work of those who have enlarged the boundaries of medicine by reclaiming an unexplored wilderness, and laying bare truths which have long lain hid. It requires but a beginning, for you will find that the work will become so engrossing and satisfactory that you will be forced,

from the very love of well-doing, to persevere with all your energy to the end. For what does not the science of medicine in some way bear upon? It analyses the wonderful processes observed in all organized beings—generation, development, growth, nutrition, decay, disease and death. It solves important questions for the legislator, and discloses mysteries to the jurist. To ourselves, it elevates and brings forth the better feelings of our nature, enlarges our sympathy, strengthens our hope, induces self-denial, and leads on to the practice of the greatest of Christian virtues—true charity. Follow on, then, gentlemen, in the honourable career opening before you; may you be worthy sons of this University, full of usefulness and proficiency. You all have the path open to you of shedding lustre on Alma Mater, and in your career may you be full of joy and peace and happiness and good report. GENTLEMEN, FAREWELL.

FIVE FATAL CASES OF CIRRHOSIS OF THE LIVER,

WITH AUTOPSIES AND REMARKS.

BY GEORGE ROSS, A.M., M.D.,
Professor of Clinical Medicine, McGill University.

The following cases of cirrhosis of the liver occurred in rapid succession in the practice of the Montreal General Hospital. They all differ much in their clinical features, exemplifying several of the characteristic phases apt to be assumed by this disease. To some of these attention will be drawn at the conclusion of the Reports.

CASE No. 1.

Intemperance—Dyspepsia—Dropsy—Paracentesis—Death from Peritonitis.—T. C., æt. 50, was admitted 10th Sept., 1878. Family history good, never had syphilis. For twenty years past has been a very heavy drinker of spirits. For eight years has suffered very frequently from sharp and stabbing pains in the hepatic region and behind the right shoulder. Would sometimes be free from these for a week at a time. During last winter these pains were much worse. In May last

began to complain of various digestive disturbances—fulness and feeling of distress at the epigastrium—loss of appetite, flatulence and diarrhœa—the latter being rather troublesome, the evacuations composed principally of mucus containing streaks of blood. There was no vomiting. He also had hemorrhoids. Towards the middle of June he noticed his feet swollen, and about the same time his belly began to enlarge.

On admission the patient was found much emaciated, grey and aged-looking—a thin drawn face with no very marked fulness of the cutaneous capillaries—anæmic but not particularly sallow. Extensive ascites, with very great enlargement of the superficial abdominal veins. No albumen in the urine; other organs normal. On the 17th September he was tapped by Dr. Fenwick with a small aspirator needle, twenty-eight pints being removed. This was followed by fever and abdominal tenderness for a few days, and rapid re-accumulation of the dropsy. Was again tapped, seven days after, in the same way, twenty-four pints were drawn off. During and after this period he was further treated by a pill of digitalis squill and pil hydrarg: potass. bitart, and an occasional dose of elaterium. In spite of this he again required tapping on October 16th, twenty-eight pints being obtained. The operation was done this time by the ordinary large trocar. He was very faint almost immediately after, but beyond this no bad symptoms. Patient continued very weak from this time. On the 27th was again tapped to 23 pints. To alleviate the faintness, this paracentesis was done with a fine trocar, the size of the ordinary exploring instrument. It had been made expressly for the purpose, was provided with a phlange and attached to a rubber tube to conduct away the fluid to a bucket. It answered perfectly well, and the serum ran slowly off whilst he lay quietly in bed. A few hours after, however, he had a severe rigor, followed by great pain in the abdomen, and constant vomiting. In spite of active treatment by poultices, hypodermic morphia, and stimulants, he rapidly sank and died on the morning of the 29th October.

The autopsy revealed nothing beyond advanced cirrhosis of the liver with evident signs of recent peritonitis.

Case No. 2.

Intemperance—Rapid Ascites—Profuse Hæmatemesis and Death.— C. B., æt. 38, was admitted 12th January, 1879. Has been a tippler for several years—has had delirium tremens three times. Denies ever having suffered from any symptoms of gastric disturbance. No morning nausea or vomiting—no loss of appetite, flatulence or irregularity of the bowels. Has been about and following his trade as usual and did not think there was anything the matter with him until *ten days ago*. Then noticed swelling of his feet and ankles, and very soon after fulness of the abdomen. On admission patient found to be a man of small stature, moderately emaciated. Complexion of a very decided dingy or muddy hue, but no jaundice —capillaries of cheek-prominences much distended and strikingly evident, abdomen greatly swollen, hard, tense and fluctuating—superficial veins much enlarged. Liver,—dulness very much diminished, barely two inches in the line of the nipple. Urine scanty, of a remarkable red color; abundant lithates; no albumen; shows marked reaction for urohæmatin. The feet and legs are moderately œdematous.

He was treated by pretty frequent doses of sulphate and carbonate of magnesia, and a diuretic mixture of acetate of potash, squill and digitalis, with the effect only of maintaining the ascites, without much increase. No notable change was observed until the 24th, when in the evening, without warning, patient vomited up half a pint of dark, somewhat clotted blood. Ice and tannic acid were given, but before morning he had brought up altogether forty-six ounces. The pulse rose to 120 and he felt weak, but the bleeding stopped, and for the next two days, whilst the same treatment was being followed, did not recur, and he was pretty comfortable. There was some diarrhœa with black blood in the stools. At 10 a.m. of the 27th, and again at 1 p.m. he vomited blood profusely—four and a half pints, quite dark and clotted. Was very prostrate after this; small, rapid pulse, pallor and faintness, Was given acetate of lead and an ice-bag applied over the epigastrium. Without further bleeding he died at 5 p.m.

The liver presented the most advanced condition of cirrhosis it is possible to imagine, its weight being only thirty-two ounces—the right lobe rounded and presenting numerous marked projections. It is separated from the left lobe by a broad band of fibrous tissue. Left lobe is a thin, flattened mass, the size of the palm of the hand; entire structure very dense and cicatricial-looking, mostly blackish-green in color. The stomach contained a quantity of bloody fluid. When the mucous membrane was carefully cleansed of blood and adherent mucus no erosions or openings into vessels could anywhere be seen, and the membrane looked rather pale. The small intestine contained a quantity of tarry matters of black color.

Case No. 3.

Intemperance—Ascites—Femoral Thrombosis—Jaundice—Blood-Poisoning and Death.—E. C., female, house-servant, æt. 27, was admitted 7th October, 1878. Is a very impracticable kind of patient as regards answers to questions. Denies most strenuously having ever been addicted to the use of liquor in excess. Her appearance, however, is much against this, for she has the look of an intemperate and dissolute woman. According to her account there were no symptoms whatever until three months ago, when she noticed a swelling coming in the lower part of the abdomen. Subsequently she lost her appetite, became weak and lost flesh, whilst the swelling continued increasing. Has been stout, but muscles now soft and flabby. Face and skin generally of a dirty sallow color. Slight injection of the veins of the face. Abdomen moderately distended and giving evidence of containing a considerable quantity of fluid. Girth at umbilicus forty inches. Urine scanty, contains abundant lithates; no albumen, and no bile-pigment. By November 4th the umbilical girth reached forty-five and a half inches, and there was moderate œdema of the feet. There was much distress in the breathing. She was tapped with the small trocar on 6th November, and nineteen and a half pints serum removed. The liver-dulness was found diminished to within two inches in the mamillary line. The dropsy re-accumulated,

and a second time, on the 27th November, twenty-one pints were drawn off. On 2nd December she suffered rather suddenly from acute pain in the left calf, which was followed by rapid tender swelling of the limb. There was a tender spot at the lower part of the popliteal space, none in the femoral triangle. (No doubt thrombosis of the popliteal vein.) This gave a good deal of trouble. A week after there was plugging of the right femoral vein with pain and swelling in that limb. About this time also, 10th December, it was noticed that she was becoming gradually but decidedly jaundiced. The urine was dark, but did not for some days give the reaction of bile-pigment, but subsequently the latter was well marked. Jaundice deepened until quite intense. Symptoms of general blood-poisoning showed themselves and the patient lay for several days in a restless, half-comatose state, and finally died insensible on the 24th December.

Case No. 4.

Intemperance.—Ascites.—Paracentesis. — Uræmic Symptoms.—Death.—C. D., male, æt. 34, wat admitted on the 10th Oct., 1878. He is a horse-dealer, and has been for the last fourteen years addicted to considerable and constant excess in the use of spirituous liquors. Has never had any illness whatever, except a few "bilious attacks," as he calls them, during the last four years. Whilst thus affected he lost appetite, felt sick and looked yellowish in the eyes—they would last only a few days. Apart from these turns he has felt quite well until seven weeks ago, when he got diarrhœa, which lasted several days, was succeeded by constipation, and then a second spell of diarrhœa. The latter condition has prevailed to a moderate extent until the present time. Vomiting has of late been of daily occurrence, sometimes more frequent. Appetite very uncertain—at times entirely wanting. No pain about region of liver. A little more than a month ago he observed his feet and ankles swollen, and about the same time the abdomen began to enlarge.

Patient is moderately emaciated, of a very decided sallow, dirty hue, but conjunctivæ quite clear, not yellow—malar

sigmata well marked. Abdomen symetrically enlarged forty-one and a half inches at umbilicus. Superficial veins considerably distended and distinct. There is evident fluctuation. Liver-dulness seems not much altered. Urine scanty (seven ounces last twenty-four hours,) almost red, with a heavy deposit of lithates, no albumen. By the 24th October the girth had reached forty-three inches, and he was tapped with a fine trocar to relieve the distress from pressure of the fluid; nearly twenty-six pints were removed. Even at this time and for some days after severe symptoms referable to the nervous system were observed. He was drowsy and apathetic. Limbs moved in a dull and sluggish manner, the grasp of the hands was particularly feeble. Pulse 112. The bowels act freely, motions light-colored, like putty. On the 28th his condition was even worse. He was heavy and soporose. On the 30th quite unconscious and restless, sighs a great deal. Dingy, sub-icteroid hue has become much deepened. Pupils contracted, and sluggish. Urine escaping in bed. It is of a deep almost claret-red color, very high Sp. gr. (1032 to 1040,) and with an equal quantity of nitric acid becomes almost solid with crystals of nitrate of urea. From this condition he never thoroughly rallied, although some remarkable intermissions occurred, during which he became quite conscious sometimes for a day at a time. Finally with a dry, brown tongue, sordes, and decided coma, he died November 13th.

Case No. 5.

Syphilis.—Intemperance.—Dyspepsia.—Dropsy—Purpura.—Death from Exhaustion.—I. B., male, æt. 44, was admitted 31st December, 1878. He was first treated for a short time in the surgical wards for an extensive superficial necrosis of the left tibia, accompanied by a large circular ulceration. He was then transferred to Dr. Ross' ward, on account of commencing ascites. He gives an account of having, fifteen years ago, had a chancre followed by a few spots upon the body. Had been very intemperate until three years ago, since when he has not drunk at all. Whilst drinking was frequently troubled with

dyspeptic symptoms—morning vomiting of glairy mucus—flatulence and irregularity of the bowels, (alternating constipation and diarrhœa,) and hemorhoids, but has had none of these since renouncing stimulants. Has lost forty pounds weight within the last two years. The trouble in the leg began eight months ago by a spontaneous spot of inflammatory swelling which, after a slight injury, rapidly ulcerated, and the dead surface of the shin-bone was left exposed. He is a large man, with flabby, flaccid muscles, face rather pale. Malar prominences and eyelids present venous stellate injection. Skin smooth and dry. Abdomen distended by moderate ascites—girth forty-one inches. Superficial veins considerably enlarged. Feet, ankles and scrotum are œdematous, slight nodes on shins and some copper-colored scars on legs. Vertical liver-dullness, three inches. Urine scanty, dark-brown, with abundant lithates, no albumen. He was treated by diuretics and occasional purgatives, but little impression could be made upon the kidneys, and the dropsy of the abdomen gradually increased. By the 19th February the girth reached 45 inches, and he was tapped with the small trocar, nearly twenty-three pints of serum being removed. Two days after he was languid and weak, and quite delirious, was inclined to retch. Tongue red glazed and irritable. On 3rd March delirium had disappeared, and seemed better. Dilatation of left pupil and slight dropping of left eyelid was observed. On 4th March there was some loss of power in all the branches of the left third nerve. Very drowsy and very weak. Pulse has become morbidly slow—to-day fifty-seven. The following day there were patches of purpuric spots on the back of both hands and wrists, and seemed much exhausted. From this time he lay in a very prostrate condition, and after having been insensible for twelve hours died on the 12th March.

The autopsy showed a rather small, rough, hard and well marked "drunkard's liver." No other lesion of moment. There was no sign of visceral syphilis.

Remarks by Dr. Ross.—In the first case death occurred from peritonitis, no doubt induced by the puncture of the trocar.

The danger to be apprehended from simple tapping of the abdomen with trocar and canula is usually looked upon as very slight, so slight indeed, as hardly to require being taken into consideration. Every precaution was taken, the instrument used was purposely very small, and the fluid was gradually removed, to prevent as much as possible the sudden withdrawal of support from the vessels of the abdomen. Probably here the patient's age, his great feebleness, the previous tappings, (one of which had been followed by inflammation,) all assisted in permitting of the development of a rapidly spreading and fatal peritonitis. The knowledge of such cases (fortunately rare—it is the first I remember to have seen) should cause us to be all the more guarded in our prognosis when performing paracentesis of the abdomen in debilitated subjects.

The latency of cirrhosis of the liver, and the rapid manner in which ascites may begin and advance, are well illustrated by Case No, 2. This patient, C. B., presented, on admission, the characteristic appearance of the subjects of advanced cirrhosis. The liver was found very small. The opinion formed was that he had fully developed fibroid contraction of that organ, yet on the most careful questioning no history pointing towards antecedent disturbance of the digestive system could be extracted, and it was only ten days prior to being first seen that enlargement of the belly was observed. From the extremely shrunken state of the liver discovered at the autopsy, there can be no doubt that the disease must have been slowly developing for many years. Is it not strange, therefore to find, as the final result of what necessarily was an extremely slow process of gradual obstruction in the smaller portal vessels, a sudden outpouring of a large quantity of serosity into the peritoneum? Why should the ascites not have appeared sooner? What disturbed the equilibrium of the circulation in so rude and sudden a manner?

I have several times seen vomiting of blood as a symptom of cirrhosis of the liver. I think, however, it is more commonly met with in the earlier stages, and it is well known that it may be the very first symptom to attract attention. In this case it

was very profuse and uncontrollable. The autopsy demonstrated the entire absence of any, even the slightest, solution of continuity anywhere; the bleeding, therefore, was from the capillaries by diapadesis, showing that copiousness of hæmorrhage is not, as sometimes held, a probable indication of rupture of a vessel. I have seen fatal hæmorrhage in typhoid fever similarly occur from a general exhalation when it was thought to have originated from an ulcerated vessel.

Case No. 3 presented another feature, viz., jaundice. From the gradual manner in which it came on and the period of its onset there can be little doubt that it arose from compression of some of the main biliary outlets by a portion of the liver adjacent which had been undergoing contraction. The symptoms were evidently those of jaundice from obstruction, especially the absence of bile from the stools, and cirrhosis alone will reach any degree without giving evidence of real jaundice, although any depth of the usual unhealthy, dirty, sallow color may be seen. No autopsy was made in this case, and therefore actual demonstration of the real lesion in question is wanting. The venous thrombosis which was a distressing accident in this case, and which occurred in both lower limbs, was probably not directly due to the nature of the pre-existing disease, but rather only to the generally cachectic state of the patient and to the obstructed venous return. As far as I am aware this occurrence is by no means common in cases with abdominal dropsy, but is oftener seen where the great ascending veins are interfered with by tumors, such as ovarian and other enlargements

In case No. 4 the symptoms of cerebral disturbance were very marked, and extended over a period of some weeks. They consisted in somnolence, great muscular weakness, and sometimes delirium. This condition resembles very closely that of uræmia from Bright's disease, and it is probable that there is a strong resemblance in the state of the blood in the two cases. At any rate, the detailed report of this case (of which the above is an extract) shows that, after this patient had been lying in an almost completely comatose condition, an enormous excre-

tion of urea took place, and coincidently with this, intelligence returned. When this unusual increase in the urea-elimination ceased, the same indications of poisoning of the nervous system were once more witnessed.

The main point of interest in case No. 5 was the matter of syphilis. There is no doubt that systemic Lues is capable of causing a disease in the liver accompanied by proliferation in the connective tissue and thickening of the capsule, which will, in its clinical features, perhaps closely simulate those of an alcoholic cirrhosis. The history of constitutional infection was clear and the patient gave abundant past and present evidence of lesions due to this cause. The history of intemperance was, however, equally clear. The question, therefore, arose, what is the probable nature of the hepatic disease? The decision I arrived at, and which was confirmed by the autopsy, was that the case was one of ordinary cirrhosis, from alcoholism, and the points depended upon were—the great frequency of alcohol as a cause, and the rarity of syphilis—the plain account of the usual antecedent of gastric disturbances—the absence of attacks of severe pain about the liver, and therefore the improbability of there having been much, if any, peri-hepatitis—the marked presence of the venous stigmata on the face.

COHNHEIM'S THEORY OF TUMORS.

Translated and condensed from Vol. I of his Vorlesungen Ueber allgemenie, Pathologie (Lectures upon General Pathology).

BY DR. OSLER.

Read before the Medico-Chirurgical Society of Montreal as an appendix to a report of two cases of Kidney-Tumors—Striped Muscle Sarcoma, and Spindle-celled Adeno-Sarcoma.

(*Continued from page* 347.)

Biology of Tumors.—All parts of the body have definite functions and perform a certain amount of work. Tumors, being atypical, have no such functions. Myomas, striped or smooth, are certainly excitable, but they are never stimulated, from the absence of the necessary nerves. The adenomas and gland cancers do not secrete, partly because they do not stand in a "typical" relation to ducts, but chiefly because the essen-

tial innervation is absent. From a biological standpoint, the chief interest of tumors refers to the laws of their growth and nutrition.

The embryonal germs, out of which tumors originate, require no other positive condition for their development than a sufficient blood supply — qualitive as well as quantitive. An osteom can not arise if the necessary supply of lime salts is not furnished by the blood, nor a lipom develop unless the needful fat-building substances are forthcoming, in quantities over and above what is necessary for the general nutrition. A long-continued elevation of the blood-flow serves very considerably to accelerate and strengthen the growth of tumors, as is commonly seen in the increase of cartilaginous and bony tumors of the skeleton and of dermoid cysts at puberty, and of growths in the breasts and ovaries during pregnancy. It is doubtful whether an inflammatory hyperæmia has the power of exciting an existing tumor-germ to develop, but there can be no doubt, according to the statements of the best surgeons, that an already existing neoplasm can have its growth rapidly increased by congestive and inflammatory hyperæmias, dependent on local irritation. Still these conditions do not suffice to explain the remarkable inequality in the rate of growth of different tumors. In this respect internal conditions, as yet unknown, must play a rôle in the diverse tumor-germs,—perhaps the period of embryonal life out of which the germ originates may have an influence in this way, that the earlier the stage at which the superfluous germs have been produced, so much the greater their rapidity of growth.

The nutrition processes in tumors are simpler than in any physiological organ, inasmuch as the circulation is the only factor which has any influence on the tissue changes. Blood-vessels exist in all new-growths, and they grow and develop just as in organs and tissues in physiological growth, with this difference, that the vascularisation of a tumor is atypical. On this account, they are sometimes poor in vessels, sometimes rich, and this difference is met with in similarly constructed myomas, fibromas, myoscomas, as well as in different sorts of tumors, which at one

time may be sparsely vascular, at another most abundantly provided with vessels, even assuming a condition teleangiectasy. Further, the distribution of the sorts of vessels in tumors is often atypical. Sometimes the capillaries preponderate, at another the veins are chiefly developed, and again other tumors are characterized by numerous arteries, so that they pulsate *en masse*. All the various local disturbances of circulation are met with in tumors—anæmia, hyperæmia (active and congestive), thrombosis, embolism, hæmorrhage and inflammation, and it not infrequently happens that the whole course of a growth is influenced by certain of these disturbances. The various degenerations—fatty, calcareous and colloid,—are met with in tumors. From these must be distinguished the ossification of the enchondromas, &c., the fatty infiltration of cells of cancer and adenoma of the breast, and the horny transformation of the cells of epithelioma, which represent the regular development of the respective tumor-germs. Necrosis forms the most important and serious nutrition disturbance to which tumors are subject, and to this many sorts are very liable on account of their atypical and irregular circulation. When the entire mass is involved, it is rather a fortunate circumstance, but more commonly, especially in tumors which project upon a free surface, the necrosis is an unwelcome and dangerous occurrence.

What becomes of a tumor?—This is the true cardinal question in the whole pathology of tumors, for its solution can alone afford an explanation of the significance of a growth to the organism. This is a question easier asked than answered, indeed, it can scarcely be settled. In the life-history of tumors there is indeed but one universally valid fact, namely, that a neoplasm never spontaneously degenerates and disappears. The rare elimination by necrosis cannot be called a spontaneous degeneration, any more than the separation of a gangrenous foot, and though fatty degeneration may diminish the volume of a growth, it cannot cause a spontaneous healing. This stability is readily understood if the cause of the tumor lies in an embryonic predisposition. Great differences, however, are observed in their life history. Some, as for example, many

fibromas, lipomas, and exostoses, last the whole life through, or for years are stationary, without exceeding a certain size. Others, again, of identical structure, grow slowly but continually, finally reaching colossal dimensions. Further, the majority of tumors, be they large or small, remain as local formations, limited strictly to the place and tissue where they began to develop; still, a considerable number do not follow this local limitation, but attack in their growth the neighbouring tissues and are followed by the production of numerous similar tumors in more or less distant organs. These latter peculiarities, diffusion, and metastasis, are the distinguishing characteristics of malignant tumors. The grounds of this difference in the growth of neoplasms, whereby tumors of identical structure sometimes remain of limited dimensions, at others become unlimited, have not been sufficiently enquired into. It may be that the embryonic tumor germs are of unequal size, and therefore possess unequal powers of growth; or the difference may lie in the greater or less blood supply. One circumstance must be taken into consideration in discussing the conditions and laws of the growth of tumors, and that is, the influence exerted by the neighbouring tissues. In physiological development, the size and form of each part of the body is the product of the reciprocal action of all its growing tissues. How is it in this respect with the growth of the pathological tumor germs? The neighbouring tissues cannot exert a positive influence on the form and structure of tumor, simply because their growth follows physiological laws with which the tumor germs have nothing to do. It is another question, however, whether the neighbouring tissues cannot influence the growth of a tumor by restraining it. An inhibition, in a mechanical sense, can scarcely be spoken of, for growth is a powerful force, and tumors of various sorts, hard and soft, attain colossal dimensions without the skin, muscle, or contiguous parts, being able to hinder their increase in size. Rather more, indeed, are all tissues pressed aside by the growing neoplasm—muscle, nerves, blood-vessels are compressed, and even the hardest tissues, such as bone, cannot resist the growth of tumors. Though the mechanical resistance of sur-

rounding parts has but little effect in checking the growth of tumors, it is otherwise with what might be called the *physiological resistance*. This is no theoretical conception, for the normal history of development teaches in a most emphatic manner that the respective tissue boundaries are never broken through. The nerves do not grow into the muscles or the skin, but definite cells in the respective regions of the body differentiate into nerves. In the case of glands, embryologists have long recognized that they originate not by a growing in of the epithelial cells into the vascular connective tissue, but by a mutual growth of the one into the other. In the history of the development of tumors, shall not such an important and pervading principle of growth hold good? In the great majority of tumors it is perfectly maintained. They can grow rapidly whether their boundary is diffuse or sharply defined. In the former case they push forward the contiguous tissue, compressing or causing it to atrophy, but they always stop at the limit of the foreign tissue and do not penetrate it. In a number of growths, viz., the malignant, this principle is not followed, the tumors press regardlessly into the neighbouring tissues, and, moreover, secondary growths originate in different localities under their influence.

The malignity of tumors is to be attributed to an absence of the physiological resistance in the parts of the body adjoining them, or at a distance. It depends on the condition of the organism, not on peculiarities in the nature of the tumor itself. The latter is the commonly received view, and in consequence great stress is laid on the arrangement and histological situation of malignant growths. The majority of such tumors present either the epithelial type—cancers, or the connective tissue type—the sarcomas; and one is accustomed to identify malignant growths with one or other of these forms, and even in cases where a chronic and localized tumor has assumed a malignant character, a carcinomatous or sarcomatous degeneration is spoken of in connection with it. The weakness of this exposition is not hard to show. So far as carcinoma is concerned, under this head are described tumors composed of a fibrous stroma, in the meshes of which epithelial cells are imbedded.

A superficial glance suffices to prove that this definition involves the criterion of malignity, for since the carcinomas originate from epithelial cells, the existence of a connective tissue stroma would be impossible, did not the tumor in its growth invade a heterogenous and foreign tissue. But wherein lies the malignant nature of the sarcomas? In reality, an exhaustive review shows that malignancy is not invariable. A very considerable number of them are not so throughout life. Thus, the sarcomatous epulis, which grows rapidly and recurs after repeated removals, never generalizes. Also sarcomas of other bones, of the ovaries, the mediastinum, and the fasciæ, can remain for years, and by their size induce the severest effects, and yet neither invade neighbouring tissues, nor yet become general; and in those sarcomas, whose later course is most malignant, still, as Virchow remarked, a harmless period always precedes the malignant course. Within the past ten years many cases have been recorded of tumors which usually run a benign course, becoming very malignant and generalizing. Among such are the cases of enchondroma described by Virchow and Lücke, of fibromas, of which several malignant examples have been met with. Glioma often runs a most intensely malignant course. So also with certain relatively highly organized tumors—the smooth and striped myomas, and a case is on record of metastases from a simple tumor (adenoma) of the thyroid. From facts such as these, Cohnheim concludes that it is not the peculiarities of the tumor which determine its benign or malignant course, but the condition of the organism. The physiological resistance of the neighbouring tissues must be abolished before a tumour can diffuse, and in the tissues of other organs before it can disseminate, *i. e.*, become infective. There are several sorts of dissemination. Of these the most frequent, but least pernicious, is along the lymphatics. In the lymph glands next to the tumor an analogous growth arises, then another gland of the same group is affected, then a third, producing a whole chain of cancerous lymph glands, which may extend for some distance. As a rule, the lymph vessels themselves remain unaffected, but in the stomach, intestines, and lungs, they are sometimes

involved. In another form the secondary masses do not involve the lymphatics, but cancerous tumors arise indifferently in organs which have neither a local, histogenetic, nor functional connection with the locality of the original tumor. The organs for which metastatic growths have the most decided preference are the liver and lungs; and there is only one tissue in which they do not occur, viz., cartilage. In all others—fat, bone, skin, muscle, kidneys, spleen, testicles, ovaries, pancreas, brain, fibrous and serous membranes, heart, uterus, mucous membranes, choroid and iris, secondary growths are met with. There appears to be no rule determining in which organ or tissue metastases shall occur. In a third series of cases, the dissemination through the lymph vessels is combined with genuine metastasis, the former preceding the latter for a longer or shorter period.

One of the most striking features in the dissemination of tumors is the fact that the secondary masses correspond exactly in histological and chemical composition with the original tumor. This conformity is so complete that it is often preferable to study the structure of a malignant growth in the metastasis than the original mass. There cannot be the shadow of a doubt that the secondary tumors arise on account of the existence of the primary one. From this conviction the theory has originated that an infectious material is produced at the site of the original tumor, which diffuses partly in the neighbourhood, partly through the lymph and blood to all parts of the body, causing the eruption of new but similar growths. The virus is supposed to be infectious only to the organism in which it is produced. The infecting agent must be either the juice of the tumor, or solid bodies, definite elements of the mass. Cohnheim inclines to the latter view. To make this plausible it is necessary to show, not only that tumor elements gain access to the lymph and blood channels, but also that when transported to other organs they develop and grow. The investigations of Koster have satisfactorily shown this in the case of lymphatics, and the growth of malignant tumors into veins is still more frequent. In the majority of cases of such tumors in which a careful inspection is made on this point, a vein is found the lumen of which is

occupied by a cancerous mass, either attached to the wall or extending as a fungoid-like excrescence. How many growths may penetrate first the small capillaries and veins? The possibility of the transportation of particles of a tumor by means of the lymph and blood streams, is beyond all question; indeed, emboli composed of such have been seen. Some believe that the cancerous embolus infects the wall of the vessel in which it lodges, and its elements produce the new growth; others hold that the cells of the embolus represent germs, which proceed in their development just as the original ones did. Cohnheim and Maas have shown in some beautiful experiments that tissue fragments, separated from their original base and lodged in the interior of a vessel, can grow and produce a new tissue. Bits of fresh periosteal tissue were put into the jugular veins of dogs and hens, and of course ultimately reached the branches of the pulmonary artery. The bits became vascular, just like a thrombus, vessels passing from the *vasa vasorum*, and within two weeks were produced first cartilage and then actual bone, and this without any participation of the vessel wall. This was not the only result. The newly formed bony plate not only never extended beyond the wall, but in the following weeks entirely disappeared; by the fourth week a small hard rudiment only remained, and by the fifth, no trace could be found.

The same effect follows the implanting of periosteal slips beneath the skin, and also the inoculation of cancer, which at first grows forcibly. It would appear that the physiological tissues of the organism oppose with an insuperable resistance the penetration of heterologous cell material, though it may possess, as shown by its early development, a power of active growth. As a direct sequence of this it follows that the tissue which permits of the penetration of tumor cells and their development, or the growth of the particles of a tumor which have been carried to it, does not comport itself physiologically. Let the tissue be histologically and chemically perfectly natural, still, there is absent from it that peculiarity described above as physiological resistance. This condition is not further defined, but the circumstances and states under which it may appear are

the following: inflammation, old age, hereditary, or, in some unknown way acquired, predisposition.

In the first place, Friedländer has shown that under the influence of inflammatory hyperæmia, new growths of epithelium very readily occur, often penetrating the altered connective tissue; thus, to give an example, in chronic sub-cutaneous abscesses he has found the epithelial cells of the rete mucosum and root sheaths of the hairs of the skin above the abscess penetrate the wall, and even form an epithelial coating on the granulating inner surface of the sac.

Of like significance are the much-discussed cases where, on the base of an old excoriation or lupoid ulcer, a cutaneous epithelioma has developed. It has already been stated that traumatism has no influence in the production and development of tumors, but Waldeyer has justly called attention to the frequency with which inflammatory alterations are found in the otherwise healthy tissues bordering on a cancer. Since the causes of these inflammatory processes may be very varied, the possibility of a traumatic influence cannot be entirely ignored, and it may, under certain circumstances, convert a benign into a malignant growth.

Of still greater significance in this respect is old age. Thirsch has laid stress upon this, and has shown that the entire connective tissues of the body atrophy at this period, and are therefore less able to withstand the penetration of the still active epithelial cells. Carcinoma almost always occurs after the 50th year, that is to say, epithelial tumors do not become malignant before this period. The weakness of the tissues, or the diminished power of physiological resistance, is one of the signs of general feebleness and old age.

There remains, however, a very considerable number of cases of malignant growths for which an explanation can neither be sought for in a previous inflammation nor advanced age. Cases of genuine cancer are not only met with in very young individuals, but the malignant sarcomas preponderate in childhood, while the malignant gliomas are almost peculiar to the first year of life. Upon what the abolition or decrease in the physiological

resistance in these cases depends is difficult to say. Possibly—even probably—heredity may play a part, but in many cases we do not know the causes of the tissue-weakness in question. This is the only point in the whole of the pathology of new growths where one is constrained to fall back upon an unknown and not definable *predisposition*. This theory no more recognizes a predisposition to a tumor than it does a predisposition to red hair or a crooked nose; but for the explanation of the malignant course of certain tumors we cannot escape from the admission of a predisposition. What makes this particularly interesting, and proves at any rate that the predisposition is connected with the tissues alone, and not with the condition of the blood or nervous system, is the fact that it sometimes appears limited to certain organs and tissues. This appears to be the simplest explanation of those remarkable and not uncommon cases, in which the entire metastases are rigidly confined to a definite system, the skin, the skeleton, the intestines or the lymph glands, the affected system not having any local, or genetic or functional relation with the locality of the primary tumor.

The differences in the course of diverse malignant growths are explained in the peculiarities of locality and histological constitution of the primary tumors. The sarcomas possess an extraordinary power of growth, probably on account of their richness in cell elements and the highly embryonic nature of their components, and this explains the fact that when they disseminate, it is much more ferociously, so to speak, than cancers, and the metastases are not so often confined to the lymph glands. Sometimes they even overleap the glands in the neighbourhood, as Virchow remarked, and appear in distant ones. This is chiefly the case in the small-celled sarcomas, in which the cells might slip through the lymph spaces. The great frequency with which tumors of the abdominal viscera are accompanied with metastases in the liver, and nowhere else, speaks in the most positive manner for extension through the blood-vessels. In such cases there are probably genuine cancerous emboli, which are transported by the blood stream until vessels are met with too narrow to permit of their passage. In precisely the same way, the

secondary tumors in the lungs arise from malignant growths in various regions of the body, and it is a point worth noting that the metastases of the giant-celled sarcoma of bone are invariably in the lungs. If the cells or particles of tumors gaining access to the circulation, are so small that they can pass through all blood-vessels, then the laws of embolism do not apply, but they come under the same category as small particles of cinnober and bacteria masses. It may be, then, a matter of accident where they lodge, or more probably it depends on the rapidity of the blood current. The slower this is the more favorable are the conditions for lodgment and subsequent growth. On this ground it is that the bone marrow and the liver are the elected seats of tumor metastases in so many cases, no matter what the situation of the primary tumor may be. The lodgment and initial growth in the interior of a blood-vessel does not necessarily involve the production of a secondary tumor. This depends on whether the physiological resistance of the neighbouring tissues be present, and this factor may be of influence in determining the localization of metastases, *i. e.*, the seeds of a tumor may gain access in numbers to the blood, but only find in certain organs or tissues conditions for their further development, these conditions being an absence of the normal physiological resistance.

Note.—Space does not permit of the further consideration of Prof. Cohnheim's views on epithelioma and rodent ulcer, or the cancerous cachexia. The above theory may appear incomplete in many points, but it must be remembered that it is greatly condensed, often, I am afraid, at the expense of clearness. In the original it occupies 75 pages.

W O.

Reviews and Notices of Books.

Lectures on Localization of Diseases of the Brain.—Delivered at the Faculté de Medicine, Paris, 1875.—By J. M. CHARCOT, Professor in the Faculty of Medicine, Paris; Chief of the Salpetrière Hospital, Member of the Académie de Medicine: of the Clinical Society of London: President of the Societé Anatomique: former Vice-President of the Societé de Biologie, &c., translated by EDWARD P. FOWLER, M.D. New York: WILLIAM WOOD & Co. 8 vo. pp. 133.

The researches of Heitzig, Ferrier and others have of late years given a wonderful impulse to the interest taken in the study of cerebral disease. Striking and remarkable as are the result obtained by experiments upon animals practised with a view of determining the functions of different portions and areas of the encephatic mass, yet nothing can at all equal in certainty the information conveyed by careful study of the experiments performed for us on human subjects by various pathological conditions; Charcot strongly urges that no matter how plausibly we may argue by analogy from the monkey's brain to man's brain, yet nothing can be considered *proved* concerning the latter except it be based upon the undeniable evidence of the pathology on the human brain itself. This is undoubtedly the proper ground to take, and everything tending to increase the general knowledge of the profession concerning these conditions is a real advance in practical medicine. As the translator rightly says: "It is too late to introduce our distinguished author to the medical profession, for wherever medicine is taught as a science his works are already known and prized, and have been translated into nearly every modern language."

In these lectures will be found a short and concise exposition of the main points which it is absolutely necessary to know of the normal anatomy of the various structures of the brain as at present understood. This is the foundation of the whole, and in the condensed form in which it appears, would of itself be extremely useful; but to this in a late chapter is added the

result of the author's own observations, both clinical and pathological, of the effects produced by diseased conditions of these various parts. In most cases naturally his observations agree with those of others, but notable exceptions to these are found where he has been led to entertain views opposed to those of previous experimentors and clinical observers. Charcot's great reputation has been founded upon the minute care with which his observations has always been made, and the scrupulous exactness with which his results have been recorded. These lectures, therefore, which he presents, as embodying his deliberate views upon this now absorbing medical topic are to be gladly received in this country, and must be entertained as any work would be, commanding such eminent authorship.

As regards the translation, M. Charcot says in the preface, he considers it "a model, both of scrupulous exactitude in rendition of the original meaning, and a clear unexceptionable style of English."

The book is very neatly got up by the publishers, and is even profusely illustrated by very good cuts.

Lectures on Bright's Disease of the Kidneys; delivered at the School of Medicine of Paris.—By J. M. CHARCOT, Professor in the Faculty of Medicine of Paris: Physician to the Salpetrière, &c., &c. Collected and published by Drs. Bourneville and Sevestre, editors of the Progrès Médicale, and translated with the permission of the author by HENRY B. MILLARD, M.D., A.M. New York: WILLIAM WOOD, & Co., 8vo. pp. 100.

Probably no disease has been rendered more complex and difficult than has Bright's Disease by many authors. This is chiefly owing to the immense numbers of pathological subdivisions which at various times have been made according to the standpoint from which the subject has been viewed. M. Charcot is not of these. He has followed exactly the opposite plan, and has endeavoured to simplify and condense as much as such a wide range would permit of; and one is surprised to find how thoroughly the ground has been covered in the small space of

only 100 pages. The first lectures are devoted to a brief consideration of what it is essential to understand of the normal anatomy and physiology of the kidney. Upon this follows a summary of the views of Bright's disease. The whole of the forms are reduced to three: the large white kidney, the contracted kidney, and the amyloid kidney. Sufficient space is devoted to the discussion of the etiology, pathology, and clinical features of each of these, and a chapter is added on Scarlatinal Nephritis. The author does not enter upon the subject of treatment at all, but claims, that a correct understanding of the management of these formidable cases can only be obtained by close study and careful observation of the different disease processes which occur in the separate forms.

We agree entirely with the Translator in saying that we "know no work which, with such conciseness and precision, presents the various characteristics of the important disease which is the subject of these lectures."

It is a very neat volume worthy of being highly recommended to the profession. Many wood-cuts assist the explanations of the text, and are supplemented by two full-page, well-executed colored lithographed plates.

Physiological Therapeutics: a new theory.—By THOMAS W. POOLE, M.D., M.C.P.S., Ont. Toronto: The Toronto News Company. New York: The American News Company. London: The International News Company, 1879. 8vo. pp. 232.

If Therapeutics is to be advanced it must be by such ways as the following: 1st. An enlarged knowledge of the natural history of diseases, so that cures due to nature may not be ascribed to medicines. 2nd. A greater clinical study of the actions of remedies in diseased states, so that these actions may be discriminated from those which take place in health from the same agents in the same doses. 3rd. Further discoveries as to the powers and effects of drugs in various amounts or modes of administration. 4th. A more minute investigation of all the results medicines cause, especially upon the quality of the

various excretions. And 5th. The finding of new remedies possessed of decided superiority over the old. We regret our author has not seen fit to enter upon any of these paths. Had he done so he might have conferred a lasting benefit on our science. He has contented himself with simply weaving "a new theory." His book is just such a one as might be spun by one who shut himself up in his study for a while with the works of others from which to cull the wherewithal. As far as we can see, he has not given the details of a single original experiment with medicines upon either animals or man. He has not recorded one observation of anything he has individually witnessed. And he makes no mention of his experience from the use of remedies in practice.

Nor are these the only charges we have against him. We think he has too much adapted the facts of others to his theory instead of his theory to their facts. Such a course may well lead to the most extravagant notions. It has often done so before. Under it even such an absurdity as the old idea of "signatures" was cast upon the world. The eye-bright flower from its likeness was then the alleged cure for every case of sore-eye. Our author's "new theory" is now the sure explanation of physiological Therapeutics.

We have not been able always to verify his references: *e. g.*, speaking of Aconite he says: "how amid such general paralysis as aconite induces, it could ever have been regarded as an excitor of any part of the nervous system," and refers to Ringer's Therapeutics, as if Dr. Ringer regarded it as such an excitor. In the edition of his work before us we find no allusion to anything of the sort. In speaking, too, of Veratrum, our Author would have it understood that Dr. R. attributes the muscular spasms and convulsions produced by poisonous doses of this agent to heightened reflex function of the spinal cord. In carefully reading his article, we find that he attributes them to an entirely different source, he says veratrum "kills the muscles," not the nerves. He certainly mentions it was thought veratrum excited the medulla oblongata and the spinal cord, but he takes care to state that this was thought to be so, not by himself, but by Kölliker.

We find, moreover, that our author is not always exact in his assertions. He states, *e. g.*, that "opium and morphia diminish arterial blood supply, and *arrest* the secretions *everywhere*." The italics are ours.) Now how can we account for such a loose statement as this? We have actually found it contradicted in another page, where, quite uncousciously, he mentions the profuse sweating that may occur after the use of opium. How often are these medicines ordered as diaphoretics? Do they not in some cases of defective secretion of the urine increase the amount? Would even the veriest tyro maintain that they arrested or stopped the flow of tears, saliva, gastric juice, or secretions everywhere?"

While, again, we have found no allusion to many excellent treatises that have lately issued from the press on his subject, as Fothergill's, &c., there are for us too many quotations from "Hughes' Pharmacodynamics," a notorious Homœopathic authority. Why draw support from him? Glonoine,—so far used only by infinitesimal practitioners,—is also fully treated.

Our readers will expect the "new theory" to be opposed to their old views. To present them with some conception of it, we must use the words of our young author, "Electricity is not a stimulus to nerve or muscle. On the contray its action is that of a sedative, anæsthetic and paralyzer." "Electricity produces muscular contractions, * * by paralyzing the motor nerves." Ergot of Rye, "resembles the action of electricity, and we see no reason to doubt that its mode of action is similar also." Narcotics as well as Ergot paralyse the nerves, and thereby cause convulsions and spasms of muscular fibres." Many other medicines of course fall in with these. But the gist of the theory is that all medicines which cause increased contraction of muscular fibre anywhere do so by withdrawing nerve force from the nerve which supplies the fibre.

Our author heaps together in support, examples of paralysis, and convulsions, or increased contraction after doses of drugs. But he does not distinguish as he ought between sensory and motor paralysis; nor between primary convulsions and subsequent paralysis. Besides the *experimentum crucis* is wanting. He

might have cut the anterior column of the cord, or the motor nerve, and then judged whether "muscular contractions" followed. But he did not. And so we have to fall back upon those who have done so before him, and take our wisdom from them.

Apart from the peculiarities incident to the "new theory," the reader will find under the actions of the different medicines much that is worth knowing, compiled from reliable sources, and quite up to the present state of therapeutics. The more purely physiological parts, when not theorized, are sure to repay perusal. Trusting our young author may yet do much more to advance therapeutics, we leave him in the hope that when we next meet it may be in ways more practical.

Extracts from British and Foreign Journals.

Unless otherwise stated the translations are made specially for this Journal.

A Case of Gangrene of the Lung treated by Incision. — Dr. CAYLEY, (Clinical Society of London) read notes of this case. The patient, a man, aged 40, was admitted into the Middlesex Hospital on December 30th, 1878. He had been ill five weeks with cough, spitting, and pain in the chest. During the last fourteen days, his breath, and expectoration had been fœtid. On admission, he was in a condition of extreme prostration and emaciation, with great dyspnœa, and painful cough; with much difficulty he expectorated small quantities of horribly offensive brownish mucus. His breath had a similar odour. The physical signs were those of consolidation of the left base, but there were no distinct indications of a vomica, as a bubbling crepitation or cavernous or aphonic breathing. The absence of these signs was probably due to the cavity being full, and to its not communicating freely with the bronchus. An exploratory puncture was made with a fine trocar and cannula, and a few drops of pus with the same gangrenous odour as the expectoration were drawn off. The patient was now put under the influence of a mixture of ether and chloroform, and Mr. Lawson made an incision in the ninth intercostal space, in a line with the angle of the scapula, three

inches in length, and continued it until the cavity in the lung was reached. A gush of about five ounces of horribly fœtid pus then took place, and with the pus several fragments of gangrenous lung tissue, the size of the end of a finger, came through the opening. A large-sized drainage tube was introduced, and the cavity was washed out twice daily with diluted Condy's fluid. The operation gave the patient great relief. He ceased to cough and to expectorate fœtid mucus, and his breath lost that gangrenous odour, and the temperature, which before the operation had been very high, fell to normal. He did not, however, rally from the state of prostration, and gradually sank and died on January 4th; the operation having been performed on December 30th. For the first two days fragments of gangrenous lung were discharged, when the cavity was irrigated. On *post mortem* examination, the lower lobe of the lung was found consolidated by pneumonia, and firmly adherent to the chest wall. In its interior was a large irregular cavity, with ragged, in parts gangrenous, walls. Where most superficial it was upwards of an inch beneath the surface of the lung. There was a small obsolete tubercular cavity, with some puckered fibrous nodules in the apex of the right lung; and the kidneys were granular although the urine had not contained albumen. In this case the patient was so much reduced when he came under treatment that little hope of a succesful result could be entertained. The operation, however, which was unattended either by danger or difficulty, gave complete relief to the most distressing symptoms, and by evacuating a quantity of putrefying matters which were pent up in the lung, and causing septicæmia, gave the only chance of recovery; and possibly, if the operation had been performed earlier, the sloughing portions of lung might have become completely detatched, and the patient have rallied.

Dr. J. E. POLLOCK asked how long Dr. Cayley's patient had lived after the operation. [It was answered that five days elapsed before death took place.] The points of interest in these cases were—First, the question of diagnosis before the operation; secondly, the eligibility of each operation. In Dr. Williams' case the difficulty was to decide whether the case was one of pneu-

mothorax, or one of a cavity with thin walls. This was always a difficult question. It turned out that the patient was suffering from the former, yet, at the time of operation, Mr. Erichsen thought that he had passed through the lung before reaching the pus. He thought that if the dulness shifted with the position of the patient, this was a valuable sign of pneumothorax. He could not remember any case where a cavity was so large that the physical signs varied much after alteration of the patient's position, or after a profuse expectoration. After all, the question of diagnosis was, perhaps, not of vital importance. He thought that cavities in the apex, where there was a good communication with the bronchus, were certainly not suitable for operation; but where the cavity was low down, with a small external opening, and much decomposition, they should be treated by incision or by tapping. Dr. Cayley was to be congratulated on his boldness in carrying out the only method of treatment which was likely to prove successful.—Mr. MAUNDER had listened with much pleasure to the cases brought forward that night. He had for some time been of opinion that, no matter what the exact positition of these fœtid cavities might be, they should be treated by incision, just like abscesses in other parts. As soon as a free opening was established, decomposition was checked.—Dr. MAHOMED related a case of a child in Guy's Hospital, under the charge of Dr. Fagge, where a pneumonia was thought croupous at first, did not clear up, and gave signs of breaking up of the lung. He was anxious to treat the case by incision, thinking that it might be an abscess of the lung, following extensive catarrhal pneumonia, which would, if left, end in acute tuberculosis. But the evidence of a cavity was too doubtful to allow this course. The child eventually died from the cause he had feared, and a large cavity was found. He was anxious to know how an adherent pleura might be certainly recognised. In Dr. Cayley's case there seemed to him to have been old adhesions. He also wished to ask what Dr. Williams considered to be the nature of the bilious attacks he had described. Dr. SEDGWICK related a case he had seen many years before, which he had diagnosed to be an abscess of the lung. This, having

become fœtid, gave rise to great constitutional illness; but, after some delay, he thought he discovered a bulging in the seventh intercostal space, and here introduced a trocar. The result was very gratifying; and the patient (his father) recovered, though extremely ill at the time. In the following winter the same trouble occurred in the same place, and required the same treatment, by which life was prolonged for several weeks.—Dr. DOUGLAS POWELL agreed with Dr. Pollock that the interest of these cases was, first, as to the diagnosis; and, secondly, the best treatment for them. In a case now under his care, he had diagnosed a pyo-pneumothorax, because the sides were bulged and the intercostal space effaced. The shifting dulness described by Dr. Pollock he regarded as a valuable test; as also the alteration of physical signs after profuse expectoration. It had been said that it did not matter much which condition was present; but he thought that in empyema it was better to make an incision in the lowest available spot, while a cavity should be opened by a trocar over its middle. He would not touch apex-cavities; but in those at the base it was very different, and here there was risk that the sputum would be inhaled into the other in the act of coughing. He would also allude to an old way of treating profusely secreting apex-cavities, which was, in his opinion, of great service; namely, by blistering and the application of savine ointment.—Mr. H. MARSH said that for himself he always insisted on knowing at what point the physician wished the chest to be opened; but he considered that it was generally advisable, when a low opening was needed, to make a preliminary incision over the most prominent point, and then make a counter-opening below.—Mr. HOWSE wished to draw attention to the trouble often caused by old adhesions of the pleura converting the pleural cavity into a network of sinuses. This had been frequently, in his experience, a source of difficulty; and he thought here a second opening would often prove futile. As to tapping cases of gangrene of the lung, he was not inclined to recommend this procedure. He had seen three cases lately where the gangrene was very limited, and no surgical interference would have been possible.—Dr. GOODHART wished to ask Dr.

Cayley what importance he laid on the presence of fœtor as an evidence of gangrene. He had not understood from the notes read that there had been distinct evidence of a cavity. In two cases under his care there was the same absence of distinct signs of cavity, though the fœtor was great. One was, no doubt, an old empyema. Was it not also true that these patients often went on a long time without getting worse. Mr. G. BIRD always trusted to a double opening with a drainage tube between them, and insisted on this as a point of importance. If this course were impracticable, he trusted to a considerable slit rather than a single puncture.—Mr. MARSH asked how far it was safe to inject such cavities with iodine. In one which he had so treated, and where there proved to be a communication with bronchus, the patient nearly died from asphyxia. Dr. BRISTOWE remarked that it was clear there was great difficulty in distinguishing between a cavity and a pyo-pneumothorax; but he thought the treatment of both should be the same. With reference to the value of shifting dulness that Dr. Pollock had insisted on, he mentioned a case of abscess of the lung where the cavity was very large, quite large enough to have proved misleading in this respect. The recognition of elastic fibres in the sputum was often a fallacious indication, of which he related a case in point. For his part he trusted greatly in antiseptics to the treatment of these cases.—Dr. WILLIAMS in his reply, explained that in the recognition of adherent pleura, he trusted to the old rules of retraction of the intercostal spaces, etc., and explained what was meant by the bilious attacks in his patient.—Dr. CAYLEY, in answer to Dr. Goodhart, said that he had taken the precaution to puncture with the aspirator before tapping.—*British Medical Journal.*

Case of Stricture of the Rectum, treated by Incision of Stricture.—(By D. LOWSON, M.D.)—Mrs. S.——, aged thirty-four, had complained for eight years of symptoms of stricture of the rectum; and though during that period she had been frequently under medical treatment, and had derived considerable relief, yet the improvement lasted only a short time, and about two years ago she was

suffering more than at any previous period. The motions, which had been narrowed for years, had become much more difficult to pass, and defecation could not be effected without severe straining and considerable pain, and was often accompanied with blood and matter. Hardened masses were felt along the whole course of the colon as far as the cæcum, disappearing after laxatives and the free use of the enema, and again collecting soon after the discontinuance of these measures. The stricture itself was felt about two inches above the anus, was hard and annular, and at some points ulcerated. It was movable on the coccyx behind, as well as on the vagina in front, and just fitting the tip of the finger, it could be pushed upwards and drawn downwards freely within the surrounding structures. The symptoms all pointed to a case of simple stricture. There was no great irregularity of surface, and after an existence of eight years, only a small extent of bowel was affected. There was no excessive fetid discharge as is the case in most syphilitic or cancerous strictures; and, in addition, the patient was not suffering constitutionally, the appetite and general health being good.

Finding that in the course of former treatment dilatation had not been resorted to, and having first cleared away the masses of scybala filling up the large intestine, a process which I found consideaably dilated the stricture, I gradually completed the dilatation by bougie. She was for the time relieved, but a month afterwards I found the stricture as before. The bougie was again resorted to, but the irritation caused by it became so great that its use had to be discontinued. Mild laxatives and frequent emollient enemata soothed and relieved the irritated bowel, but dilatation could not again be borne, and the symptom of stricture became aggravated.

For twelve months the patient had been under treatment without any marked improvement in the condition of the stricture, and she now became very anxious to have something done for her permanent relief. Dilatation having proved unsuccessful, the idea of colotomy presented itself, but under the circumstances it seemed rather an extreme measure; and excision of the lower part of the rectum, although strongly advocated by high authori-

ties for cancer, has the disadvantage of destroying largely or entirely the action of the sphincters. The removal of the stricture alone seemed the most feasible operation, for by cutting out the narrowed ring, and stitching together two pieces of bowel which were healthy and had sustained no loss of substance in their circumference by the ulcerative process, a union might be expected free from contraction; and approaching the rectum from behind by an incision extending from a little behind the anus to the tip of the coccyx, and by keeping as near as possible the mesial line, so as to run parallel with the fibres and divide into halves that part of the external sphincter which lies between the anus and coccyx, its action would not be ultimately interfered with, and the internal sphincter would be preserved entire. Mr. Jessop of Leeds, who saw and examined the case minutely, considered it a very favorable one for operation, as did also Mr. Knaggs of Huddersfield. Accordingly, on the 5th of December, 1877, having cut down in the mesial line in the interval between the coccyx and the lower end of the bowel, I divided the posterior part of the external sphincter as much as possible into two lateral halves, and turning these aside with the intermingling fibres of the levator ani, I introduced the finger inside the rectum, and pushing it firmly into the stricture I pulled it down from its situation in front of the coccyx, and made it project backward through the external wound. Reaching the wall of the rectum, and having dissected the surrounding stricture from the lateral aspects as far forwards as the recto-vaginal septum, I cut the bowel through above and below the stricture, dissected the ring off the posterior vaginal wall, and stitched the two pieces of bowel together with catgut sutures. Two small vessels spouted, but did not require ligature.

After the operation the temperature gradually rose, reaching its maximum—102°—on the evening of the third day, and falling again, became normal two days after. The pulse corresponded with the temperature, being 120 the third day after the operation. The catheter had to be used for a fortnight. There was never any abdominal tenderness nor other symptom of peritonitis. The vaginal pipe of an ordinary Higginson's enema was intro-

duced into the rectum on the conclusion of the operation, and the bowels were kept confined for five days. After this, however, diarrhœa came on, and the management of the wound became difficult. A small-sized Ferguson's speculum was introduced in place of the vaginal pipe, and through this the bowel was cleansed. The stools now became liquid and very irritating, were mixed with smooth scybala, and came away partly by the tube, but also by the wound, excoriating the integument in its vicinity. Opium had to be prescribed freely on account of the pain, and yet the nights were restless and the appetite became poor.

About three weeks after the operation the lower fragment of bowel gave way behind, probably from the continued pressure of the speculum, and immediately all the symptoms began to improve. There was now no pain except when the bowels were moved; there was considerable retentive power except when the bowels were relaxed; the discharge became less irritating; the excoriations healed; and the blue line began to appear at the margin of the wound.

March 9th, 1878.—The condition of Mrs. S——, has greatly improved. The bowels now act regularly; there is neither pain nor straining at stool; the motions are natural in size, but flattened; and the sphincter is good except when the bowels are relaxed, when she finds retention is not as good as formerly.

March 31st, 1879.—A considerable amount of cicatriscal stricture has formed around the seat of the operation, and some contraction has taken place, but a medium-sized bougie passes easily, and the motions without difficulty. The symptom complained of most is "painful sitting." To sit comfortable she is obliged to lean well forward, or inclined to one side in a semi-recumbent position. Except during an attack of diarrhœa, which she is sometimes subject to, her sphincter power is perfect.

The great difficulty in the case was the after-treatment. The passage of fæcal matter of a very irritating nature over the wound, and the tendency to diarrhœa common to most rectal operations, retarded the healing process, which semed also to be delayed by the action of the internal sphincter, just as in the cases of fistula. There are few strictures situated so low down as to come within the range of the foregoing operation; but in cases of the sort I think that it might be advisable to perform colotomy in the first instance, and so to carry off the fæcal matter by the loin; then, after an interval, the stricture in the rectum might be removed, and a good union secured, and subsequently the artificial anus closed and the motions allowed to pass off by their former channel.—*The Lancet.*

The influence of Constitutional Syphilis upon the Course of Wounds.—Dr. DUSTERHOFF states that the contiguous forms of syphilis do not generally exert any influence upon the course of traumatic lesions. A wound subjected to constant irritation during the period of contagion may become the seat of syphilitic efflorescences, without its healing being sensibly retarded. Persistent irritation of a wound, bad diet, and excessive antisyphilitic treatment generally retard the cure more than constitutional syphilis itself. Wounds in the neighbourhood of a primary induration may heal by first intention. Latent syphilis is ordinarily without influence upon the course of a wound. A surgical operation successfully performed in a case of latent syphilis may be followed after cicatrisation by syphilitic manifestations in the position or not of the wound. Autoplastic operations performed on the syphilitic parts often fail, especially if an incomplete course of treatment adopted shortly before the operation has caused the disease to become latent. In this case syphilis appears spontaneously at the seat of the operation. Every subject of syphilitic ganglia ought to be submitted to a course of antisyphilitic treatment before undergoing an autoplastic operation. Tertiary syphilis in a progressive state renders the patient an unfavourable subject for effecting a cure. This is not the case, however, if the patient is passing through a retrogressive stage, or is entirely cured. Syphilis in the bones predisposes to fractures and hinders consolidation. Treatment by mercury does not prevent induration, but rather assists it. In cases of inveterate syphilis, more especially in syphilis of the bones wounds are sometimes accompanied by a specific gangrene, which cannot be arrested by any antisyphilitic treatment. There is no reason for supposing that constitutional syphilis predisposes to hæmorrhage from the wounds. Lastly, there is no relation between constitutional syphilis and pyæmia. The above results were obtained more especially with a view to the consideration of the influence of constitutional syphilis upon the course of wounds received upon the field of battle. (*Arch. de Langenbeck*, Bd. xxii. hft. 4, and *Arth. Gen. de Med.*, Feb. 1879.)—*The Practitioner.*

CANADA

Medical and Surgical Journal.

MONTREAL, APRIL, 1879.

McGILL UNIVERSITY.

PROCEEDINGS OF CONVOCATION, M.D., 31st MARCH, 1879.

Long before the hour fixed for this ceremony the William Molson Hall of the University was filled with students and their friends. Shortly after three o'clock the members of Convocation entered the Hall and the Chancellor assumed the chair.

The proceedings were opened with prayer by Archdeacon Leach.

A large number of the Governors and Professors of the different Faculties were present.

Dr. Scott, in the absence of the Dean of the Medical Faculty, Prof. G. W. Campbell, read the following report of the Medical Faculty for the first Session.

The total number of students enregistered in this Faculty during the past year was 166, of whom there were, from

Ontario,	87.	New Brunswick,	7.
Quebec,	53.	P. E. Island,	3.
Nova Scotia,	5.	Newfoundland,	1.
	United States,	14.	

The following gentlemen, 40 in number, have passed their Primary Examinations on the following subjects: Anatomy, Chemistry, Materia Medica and Pharmacy, Institutes of Medi-

cine and Botany and Zoology. Their names, and residences are as follows:

Ayer, N.....Woodstock, N.B.
Brown, T. L.....Ottawa, O.
Beer, Chas. N., Charlottetown, P.E.I.
Cameron, P.....Williamstown, O.
Church F. W.....Aylmer, Q.
Cahalan, J .....Wyandotte, Mich.
Cowley, D. K.....Ottawa, O.
Dibblee, G. O...St. Stephens, N.B.
Edwards, J. S.....London, O.
Fielde, E. C.....Prescott, O.
Fraser, H. D.....Pembroke, O.
Gray, W. L.....Pembroke, O.
Heyd, H. E.....Brantford, O.
Higginson, H. A.....L'Orignal, O.
Henderson, A.....Montreal, Q.
Josephs, G. E.....Pembroke, O.
Laurin, E. J.....Montreal, Q.
Lang, W. A.....St. Marys, O.
Maas, R. L.....Negaunee, Mich.
Mignault, L. D. B.A...Montreal, Q.
McDonald, M. C .....Montreal, Q.
McDonald, J. A....Panmure, P.E.I.
McDonald, R. T.....Montreal, Q.
Mackenzie, K.....Melbourne, Q.
Mackenzie, B. E., B. A..Aurora, O.
McLaren, D. C. B. A. .Montreal, Q.
McGannon, E. A.....Prescott, O.
O'Calaghan, T. A. B.A.Worcester, M.
Pringle, A. F.....Cornwall, O.
Pulford, F. W.....Detroit, Mich.
Ross, G. T.....Montreal, Q.
Ross, J. W .....Winthrop, O.
Ruttan, A. M.....Napanee, O.
Riordan, B. L.....Port Hope, O.
Rogers, E. J. .....Peterboro, O.
Stewart, J.....St. Anicet, Q.
Stervis, F. W.....Iroquois, O.
Smith, E. H.....Montreal, Q.
Snow, W H.....Dundas, O.
Struthers, R. B.....Phillipsburg, O.

W. C. Perks, Port Hope, has passed the written, but owing to illness was unable to present himself for the oral examination.

The following gentlemen, 37 in number, have fulfilled all the requirements to entitle them to the degree of M.D., C.M., from this University. These exercises consist in examinations both writen and oral on the fellowing subjects: Principles and Practice of Surgery, Theory and Practice of Medicine, Obstetrics and Diseases of Women and Children, Medical Jurisprudence and Hygiene, — and also Clinical Examinations in Medicine and Surgery conducted at the bedside in the Hospital.

Brown, J. L .....Chesterfield, O.
Burwash, Henry J..St. Andrew's, Q.
Butler, Billa F.. .....Stirling, O.
Carman, Philip E .....Iroquois, O.
Carman, John B.....Iroquois, O.
Chisholm, M..Loch Lomond, N. S.
Case, William.....Hamilton, O.
Gray, Thomas.....Brucefield, O.
Groves, George H .....Carp, O.
Gurd, David F.....Montreal, Q.
Hart, Geo. C..Osnabrook Centre, O.
Hanna, Franklin.....Harlem, O.
Henwood, Alfred J....Brantford, O.
Imrie, Andrew W..Spencerville, O.
Irwin, J. L.....Montreal, Q.
Jackson, Joseph A..Lawrence, N.Y.
Jamieson, Chas. J.....Ottawa, O.
Lawford, John B.....Montreal, Q.
Lefebvre, John M.....Toronto, O.
Lloyd, Hoys W .....Strathory, O.
Lloyd, Chas. C .....Roscoe, Ill.
McArthur, John A..Underwood, O.
McCully, Oscar J. M.A.Sussex, N.B.
McCullough, George..St. Marys, O.
McGuigan, William J..Stratford, O.
McNee, Stuart.....Perth, O.
Menzies, John B.....Almonte, O.
Riley, Oscar H .....Franklin, Vt.
Rutherford, M. C.Washington, N.Y.
Scott, John J.....Ottawa, O
Seymour, Maurice M.Chesterville, O.
Shaw, William F.....Ottawa, O.
Smith, John.....Torbolton, O.
Spencer, Richmond....Montreal, Q.
Sutherland, William R.Montreal, Q.
Weagant, Clarence A....Dundas, O.
Williston, H., M.A. Newcastle, N. B.

Frank Buller, M.D., M.R.C.S. Eng., Lecturer on Diseases of the Eye and Ear, receives the degree in course, with *pro-forma* examination.

Of the above named gentlemen, Mr. J. B. Lawford is under age. He has, however, passed all the examinations and fulfilled all the requirements necessary for graduation, and only awaits his majority to receive his degree.

The following gentlemen have passed in Anatomy :—

W. Cormack,	J. H. Carson,	F. Tupper,
G. H. Oliver,	F. H. Mewburn,	W. A. Derby,
W. J. Musgrove,	C. M. Gordon,	G. C. Wagner,
M. McNulty,	A. P. Poaps,	J. C. Shanks,

The following gentlemen have passed in Materia Medica :—

W. Cormack,	H. Lunam, B. A.,	W. Shufelt,
M. McNulty,	W. Moore,	J. C. Shanks,
* A. Dunlop,	A. McDonald,	J. Williams,
* J. J. Hunt,	T. W. Reynolds,	J. B. Harvie,
		T. A. Page,

The following gentlemen have passed in Chemistry :—

A. P. Poaps,	A. H. Dunlop,	J. B. Harvie,
W. Cormack,	W. T. Derby,	W. A. Shufelt,
A. McDonald,	T. W. Reynolds,	J. C. Shanks.
A. D. Struthers,	J. Williams,	G. C. Wagner,
J. McKay,	J. J. Hunt,	F. H. Mewburn,
C. M. Gordon,	H. Lunam, B. A.	W. Moore,
James Ross, B. A.	R. H. Klock,	T. A. Page,
B. Fritz.	J. H. Carson,	

The following gentlemen have passed in Physiology :—

W. Cormack,	A. D. Struthers,	J. H. Carson,
H. E. Poole,	W. A. Shufelt,	E. Fritz,
W. J. Musgrove,	C. M. Gordon,	R. H. Klock,
A. McDonald,	G. C. Wagner,	A. H. Dunlop,
F. H. Mewburn,	T. W. Reynolds,	W. C. McGillis,
W. Moore,	J. J. Hunt,	

The following gentlemen have passed in Practical Anatomy :—

W. A. Shufelt,	F. H. Mewburn,	W. A. Derby,
F. Tupper,	J. C. Shanks,	E. Fritz,
C. M. Gordon,	J. H. Carson,	

Students who have passed in Botany :—

CLASS I.

H. V. Ogden, B.A. (prize).	Alex. Shaw,	T. N. McLean,
G. W. Cameron, F. A. Holmes, } equal. 2nd pr.	James A. Trueman, Philias Vanier,	E. J. C. Carter, H. Gale,

CLASS II.

B. W. Burland,	Edmund Christie,	John Graham,
Henry O'Keele,	T. J. Pierce O'Brien,	W. H. Shaver,
W. T. Duncan,	E. C. Bangs,	John M. Scott,
B. F. W. Hurdman,	W. A. Dewolf Smith,	T. L. Martin,
J. H. Edick,	J. H. Shaver,	

CLASS III.

W. E. Thompson,	N. J. Hinkley,	R. F. Campbell,
J. B. Green,	C. B. H. Harvey,	George Shrady,
B. D. Pierce,	C. H. Ormond,	Albert Cuthbert.
A. McR. Catenach,	W. W. Denyer,	

MEDAL AND PRIZES.

The Medical Faculty Prizes are four in number:

1st. The Holmes Gold Medal, awarded to the student of the graduating class who receives the highest aggregate number of marks for the best examinations, written and oral, in both Primary and Final branches.

2nd. A prize in books awarded for the best examination, written and oral, in the final branches. The gold medallist is not permitted to complete for this prize.

3rd. A prize in books awarded for the best examination, written and oral, in the primary branches.

4th. The Sutherland Gold Metal awarded for the best examination in Theoretical and Practical Chemistry, with creditable passing in the Primary branches.

The Holmes Gold Medal was awarded to John B. Lawford, of Montreal.

The prize for the Final Examination was awarded to A. W. Imrie, Spencerville, Ont.

The prize for the Primary Examination was awarded to John Andrew McDonald, Panmure, P.E.I.

The Sutherland Medal was awarded to W. I. Gray, Pembroke, Ont.

The following gentlemen arranged in the order of merit, deserve honourable mention: —In the Final Examination, Messrs. Shaw, Gray, Sutherland and Williston.

In the Primary Examination, Messrs. Josephs, W. L. Gray, J. W. Ross, Beer, Rogers, Henderson, R. B. Struthers and Heyd.

PROFESSORS' PRIZES.

BOTANY, - H. V. Ogden, B. A. St. Catherines, O.

PRACTICAL ANATOMY.—Demonstrator's Prize, in the Senior Class, awarded to Chas. N. Beer, of Charlottetown, P.E.I.

Junior Class prize awarded to James Ross, B. A. Dewitville, Q.

The *Sponsis Academica* was administered by Prof. Osler, and the degree of M.D., C.M., conferred by the Vice-Principal, J. W. Dawson. The Chancellor then called on Dr. Oscar J. McCully to deliver the valedictory on the part of the graduating class. That gentleman spoke as follows :—

What a mysterious double-faced picture this life of ours is ? How strange it is that when we are the most elated, when all about us appears bright and happy, we have only to stop and think to recollect that somewhere hangs that hideous skeleton. Again, when deserted and despondent, when the world looks cold and drear, we have only to look to see the silvery lining of the dark cloud. Often, in a storm, as the clouds, gloomily settling down, have encircled the mountain-top,

> "And storm rolled in masses dark and swelling,
> As proud to be the thunder's dwelling,"

And as the winds, let loose from their prison-tower have leaped forth in nimble, tumultuous glee, and as the God of the storm has rolled in chariot along the vault of heaven above us, his apparel as black as night. But above all this tumult how carelessly lies the fleecy cloud, "sleeping in bright tranquility," while the sunshine reflected from the sparkling ice-capped peak, dances upon its snowy bosom in serenity and peace.

And so with us to-day ; our hearts are sad within as we look at the dark side of our meeting together, cheered as they look at the more hopeful and pleasing side. True, we do rejoice that we have received, at the hands of our Alma Mater, the highest honor she can confer ; we feel a certain degree of self-satisfaction that we have at last accomplished that which we have been striving to do during our college course. But this is only one side of the picture. Our college life is at an end, and as we who are met here to-day as professors and students know

full well that we shall all never meet again. And we who have associated with each other for four years, with our wonted freedom from care, must part perhaps forever. Our songs, our merry-makings are at an end. Friendship made agreeable by a community of interest, cemented by the fact that we have the same trials, the same troubles, the same triumphs must be broken. Let us not say broken, for though separated far from each other let friendship's ties still remain intact. To-day we are sent adrift upon the cold world, the responsibilities of the profession we have chosen thrown fully upon us. Now we must fight the battle alone, with no more practised hand to guide, no sager head to direct our steps. If we had mastered medical science in all its depth and breadth perhaps we would be happy to-day. But if we ever thought we could so master it in a college course, we must be surely undeceived by this time. No, we have simply entered the vestibule, the mighty structure with its airy windings, its unexplored passages, with all its vastness and grandeur, lies unexplored before us, and it remains for us, by a life of unceasing toil and unremitting energy, to grope our way out, or be lost in its perpetual gloom. We have looked forward to this occasion with the most pleasing expectation, and have thought that when we attained the goal of our college life, we would be happy indeed. It has come at last, but it appears to have lost all the sweetness in the possession, and all the charm now lies in the retrospect. We, like fellow-travellers, have been toiling up a mountain side and on our way have met many difficulties. We have complained of the rough boulders over which we have had to climb, of our winding path blocked by the fallen oak, interrupted by the rushing stream and dark ravine that almost threatened us with ruin. Then we could see nothing of beauty about us, all was toil and disappointment. But the summit gained, we cast our eyes over the green valley below, with its winding silvery brooks down the mountain side, with its green foliage, and its rocks standing out as black knights, guardians of a foreign land, and disdain has lent "an enchantment to the view," and all is beautiful. So with us in our college life, we have thought it hard

that we were compelled to learn things as foreign to our profession as the hieroglyphics of Egypt, forsooth though censured with the fact that was all for the attainment of a good memory —such an essential to a medical man. We have thought it hard that we have had to take down lectures word for word, then to learn them by heart and repeat them *verbatim* at our examination. We have thought it hard when we could only catch a word now and then, and then be expected to fill up the missing links in our notes, and to pass créditable examinations upon them. But now that we have toiled through all these troubles they appear the most pleasant incidents in our sojourn here. And there is no doubt but that in after years, amid the cares and responsibilities of the profession we have chosen, we shall look back upon the picture of our life here, and all the defects that mar its beauty will be blotted out, and only the beautiful and charming will stand out in bold relief, and no doubt we will come to the conclusion that our professors knew far better what was good for us than we impudent students did ourselves. Then we will wonder we were so hard to please, and amid our inevitable troubles we will long for the good old college days gone by. We shall long to see the old halls, to see the old college grounds, where so often in merry sport we forgot the worry and vexation of studies to see the smiling faces of our old companions, to enjoy once again the gallop and game of college life. To our fellow-students, whom we leave behind us, we bid an affectionate farewell. It is not our place to offer you advice, you need no defence, for the position you occupy as medical students, and you shall be spared a senseless eulogy at our hands. And as we leave you we cannot do better than express a hope which I know finds a warm response in the hearts of my fellow-graduates and of every student connected with McGill Medical College, that during your stay you may see the greatest curse under our college labors swept away. I need not name it, for every sensible student and professor must know full well what it is. Often as we have bent over those ill constructed forms, and have attempted to pen all the words of wisdom as they fell from some professor, trying to say so much

in so long a time, and then, wearied with this mere mechanical act, have spent our night trying to decifer what we had written, (at last having given it up in despair and disgust) we have come to doubt that we were living in the enlightenment of the nineteenth century, but to think that we were groping in the darkness of the middle ages, long before the printing press had been invented. If our notes are to be the main source of our knowledge why impose upon us poor unoffending wretches such terrible drudgery, and why rob the professor of his time to instruct and explain. Why! and echo, with a bitter mocking voice, sends back the answer, why! why!! We do not hesitate to venture the assertion that one-half of the labor spent by the student in medicine in McGill is worse than wasted in unnecessary note-taking; and if that in our case had been spent in study upon the clearly printed page, and the professors had spent time in demonstration and examination, what prodigies we new-pledged doctors of to-day would be. Gentlemen, in the interest of our Alma Mater, which we wish well from the depths of our inmost soul, and against which we would shun to say a word which would detract from her usefulness or infringe upon her dignity, we wish you this much needed reform.

To our professors, who, during our course, often at the expense of health and the duties of their profession, have devoted themselves to the task of instructing us in the profession we have chosen, we return our sincere thanks. We shall not detain you with the usual enumeration of your many virtues which falls to the lot of the valedictorian, but shall say that you have ample reward in the knowledge of a noble work well done. Your influence has not been confined to the round of your daily cares, but has been, and shall be felt in thousands of homes throughout the Dominion, and throughout the world; and you must have the highest sense of happiness in knowing that you have exerted this mighty influence for the best, and we have only to lament that we are not better exponents of your teaching. We may be pardoned here if we seek a personal digression. There are departments in McGill which, under the able administration of those who have them in charge, have been brought, within the last few years, almost to perfection. The professors

who have these in charge may have the satisfaction of knowing that their efforts were appreciated by the students now leaving them. We refer to the departments of Hospital Clinics and Practical Anatomy, and make bold to say that whatever may be the faults of McGill in other particulars, at least in these she can challenge competition with any teaching body in medicine throughout the world.

To the ladies, the vision of whose smile and genial presence here to-day has been an incentive to the discharge of our duty throughout our college course, we return our sincerest thanks for the honor done us by being with us to-day. We make bold to address you as the major partners in our profession. When those who boast themselves as being the most manly and strong fails, woman, with a heroism, has still been true to her part, as the deserted streets of our pestilence-stricken cities, the bloody field and the crowded wards of our hospitals bear ample witness. And we must admit that her sympathy, her unremitting devotion has done more in restoring health than the fulfilling of our directions or the administration of our nauseous medicine.

The science and practice of medicine needs no defence at our hands. We pride ourselves on having chosen one of the most philanthropic of professions. True, it is. To stand beside the bed of the aged invalid and smooth his pillow for his inevitable grave, to stay the hand of death from laying his rude hold upon the young, the beautiful, and the strong; and to assuage human suffering wherever we may find it, stirs to life the noblest impulses of the soul. But there is a nobler and higher aspect of our profession than even this, which lies in the power and duty of the medical man—to educate the people how to prevent disease. The world, with all its boasted culture and improvement, is not perfect yet. And is it not strange that to-day we do not understand nor practice sanitary science and practical hygiene as well as did the ancient Romans and Greeks; and in our chase after phantoms which too often renovate we have neglected the cultivation of that, independent of which we cannot be a great and happy people. The masses are not alive to the mighty preventatives, to discover which they have in the

strict observance of the laws of health, and in the improvement of their sanitary surroundings. Let us then, as true medical men, make war upon the conditions producing disease, until we have a correct public opinion and proper legislation upon these matters which heretofore have been shamefully neglected. We now who are about to play our parts in the drama of life, and as we enter upon the practice of our profession let it not be in the narrow spirit of any one particular school, although we may be called by the name of the oldest and most scientific, but if there is any good in other schools let us not despise it simply because it is called by a name objectionable to us. Let us seek faithfully for the truth, and finding it where we may, let us put it into practice. Let ours be the broad school of doing everything we can to alleviate suffering and better mankind. Let us, proud of a profession as noble as it is responsible; proud of a University which we delight to call our Alma Mater, whose very life-blood now pulses in our veins, stimulating us to actions worthy of her, and whose honor and integrity we shall ever attempt to maintain; proud of a country vast in its area, boundless in its resources, great in the present but still greater and grander in the glorious future still lying before it; let us go forth with God o'er head and heart within to discharge our duties to our fellows faithfully and manfully. And at last when we have fully played our part, though the voices may not tremble to the death of one who has waded through slaughter to a throne, though we be not borne in solemn state through the long drawn aisle and fretted vault, we may be paid the humble thought, no less enviable tribute of the grateful tears of those who will say that the world has been the better for us having lived in it. Now we say to professors, our fellow-students and to the kind friends who have honored us with their presence, farewell. A word that must be and hath been; a sound which makes us linger; yet, farewell. We cannot do better as we say these sad words than apply to ourselves the closing lines of Thanatopsis:

> "So live that when thy summons comes to join
> The innumerable caravan that moves
> To that mysterious realm, where each shall take
> His chamber in the silent halls of death,
> Thou go not like the quarry slave at night
> Scourged to his dungeon, but sustained and soothed
> By an unfaltering trust, approach thy grave
> Like one who wraps the drapery of his couch
> About him, and lies down to pleasant dreams."

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CANADA

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SOME PRACTICAL HINTS

ON THE

GENERAL TREATMENT OF THE INSANE;

BY HENRY HOWARD, M.D., M.R.C.S., Eng.,

Attendant Physician to the Longue Pointe Lunatic Asylum, President of Montreal Medico-Chirurgical Society.

Mr. Vice-President and Gentlemen,—During my long, forced, absence from you in consequence of my broken arm, I felt, as soon as I was able, I could not better employ my time, nor could I in a more becoming manner prove to you my grati tude for your kindly expressed sympathy, than by preparing a paper to read before the society; and as I had heretofore given you so many papers of a theoretical character, that this paper, at least, should be practical. Of course you will understand that being thus employed was a pleasurable recreation to me. No one recognizes more fully than I do the necessity that there is for the animal man to have rest from both physical and mental labor, the former more particularly; but when that rest is forced upon us by having our bones broken, we do not value it very highly, perhaps not as much as we should. When we recover we may be led to see how good it was for us, but when we are suffering, it is hard to convince us where the good comes in. As to mental rest it is certainly necessary for us all, but that is

best obtained by changing our mental occupation, from time to time, so as not to weary our minds by always dwelling upon the one subject. I know of nothing more destructive to the brain-worker than always poring over the same work, never taking an hour of recreation, never condescending to the *wise folly* of a good hearty laugh. The best advice, I think, we can give to all labourers, whether their work be mental or physical, is to follow the advice of that philosophical individual, Mark Tapley, and be "jolly" under any circumstance.

I propose, gentlemen, this evening to give you a few general remarks on the treatment of the insane; and when I speak of the insane, I confine my remarks to those who having been sane, have from some cause or other lost their sanity and become insane, and here I would at once state, that, properly-speaking, we neve, *cure* these patients; they *recover* their sanity which they lost, and we aid in this recovery by prudent and well directed treat ment, as we retard their recovery very frequently by unwarrantable interference and ill-directed treatment. No matter from what exciting cause a sane person loses his sanity, if he do not recover his sanity or die during the maniacal attack, he gradually descends into a state of imbecility, in which he dies, sometimes after a short, sometimes after a long period of time.

It is not necessary for me to inform the members of this society that there is no such thing as a specific for the cure of insanity. How could there be when there are so many direct and remote exciting causes to produce it? It may be due to some functional derangement, some reflex action, deranging the brain or its coverings; or it may be due to some direct irritation of the brain or its meninges, or to some lesion of the brain substance or its coverings; it may be due to an increased or diminished quantity of blood, it may be caused from thrombus, from aneurism, or congestion, it may be caused from abscess, from tumour, or from softening of the substance of the brain. Seeing then, gentlemen, that there are many remote and direct causes which produce insanity, how can there possibly be a specific for the cure of insanity? Yet, we find, every day, our medical literature and newspapers teeming with remedies for the cure of

insanity, because some one recovered his sanity while taking some particular medicine, which, probably had no more to do with the recovery of the patient than if he had taken so many drops of cold water. When you see these reported cases, I beg that you may not let them produce any strong impression upon you. When you for a moment think of the anatomy of the brain and its appendages, and its connection with the whole human frame, even to our most minute organs, by means of the sympathetic nerves; when you consider the nerves of sense, the motor nerves, all forming one great arch, and all connected with the brain; the sensory nerves and the vaso-motor nerves; when you remember that every nerve has its own proper centre, either in the brain, the spinal marrow, or some of the numerous ganglia of the sympathetic, and that the brain, so to speak, is the grand centre of all, you are not surprised to learn that many cases of insanity arise from some functional or organic derangement, of some of the many important organs, whether it be the heart, lungs, liver, kidneys, organs of generation, or organs of digestion. Aye, I might even mention our members of locomotion, for I have seen insanity caused by the amputation of a limb, and some of our greatest physiologists have pointed out the fact, of brain and nerve wasting from the loss of an arm. Again, when you remember that the work of the brain is never done, that it is never at rest, you are not surprised to learn of all the organic changes that it is subject to, any of which may give rise to insanity. I say the brain never rests, for to have perfect rest there must be unconsciousness, and there is no such thing as unconsciousness, during life and health. When we see a person in a very sound sleep, we say he is unconscious; he may be to many things, but not to everything. Make some unaccustomed noise, and let that noise be an alarm of danger, for example, and you will see how soon the person will wake up; or touch him with your cold hand, and see how quickly he will start and open his eyes; or bring a light into a dark room where a person is asleep, and you will have the same result, or put some unpleasant odour under his nose, you will have the same result. I know a gentleman a id

such is his abhorrence of the smell of a bug, that if one gets into his bed and comes within smelling distance of his nose, he will awake immediately, with a feeling of nausea, light his candle, and if possible expel the intruder. So you see in the most deep *healthy* sleep the brain hears, sees, feels and smells ; so that it is never unconscious, but keeps, as it were, constant guard over us. I need not tell you, gentlemen, that all conciousness is centred in the brain ; it is the brain that feels, that hears, that tastes, that smells, that suffers. Eulenburg and Gutman in their "Physiology and Pathology of the Sympathetic System of Nerves," speaking of "Neuralgia Mesenterica," say : "At the present day we need not discuss the doctrine believed in by Tanquerel des Planches, and many other physiologists of his time, that the sensory and motor centre for the intestinal viscera is to be found only in the ganglia of the sympathetic. We know, on the contrary, that the sensorium commune in men is exclusively cerebral, that is, that sensory impressions are felt only in the brain, and that also the movements of the vegetative organs are in various waps controlled and modified by the cerebro-spinal nervous centres, as has been proved by numberless experiments and pathological observations relative to the stomach, intestines, ureters, bladder, uterus, vasa deferentia, &c. Such a statement as Tanquerel, des Planches' would now be an anachronism. If we keep in view the neuralgic nature of the group of symptoms known as entetralgia or colic, the only important subject for investigation is concerning the peripheral course of the irritating action ; whether—to express it more clearly—this is conveyed to the sensory centre by *sympathetic* or exclusively by *cerebro-spinal* afferent fibres. In the first case the sympathetic would have to be regarded entirely a sensory nerve, the analogue of the sciatic nerve in sciatica, or of the trigeminus in prosopalgia." This is an interesting quotation in many particulars, but my object is to prove to you, from such authorities, that sensory impressions are felt only in the brain. True we attribute the pain to the part affected, for example, a friend of ours could tell you of a case that came under his observation some few weeks ago, when at midnight, he found his patient, an old gentleman, sitting in a

hip-bath, and suffering most excruciating pain in the lower part of the rectum, that is to say the rectum was the part affected; but, of course, it was the brain that took cognizance of it; this was a case, according to authorities just quoted, of spasmodic contraction of the sphincter ani, analogous to colic, but in a different part of the intestinal canal. I am happy to tell you, that the said old gentleman soon obtained relief from the treatment prescribed by his physician. One point more with regard to the brain, and that is, does the healthy brain ever cease to think? That is, does it cease to think when we are asleep? From a psychological and physiological study of the question I do not think it does. What are our dreams but thinking, thinking at random, if you will, but still thinking. But the fact is better established by the many cases on record of men working out difficult problems during their sleep that they had failed to work out during their waking hours. It may be said that the brain is perfectly unconscious under the influence of chloroform or narcotics; it may be so, though that requires proof; but then the brain is not in a normal state under the influence of narcotics or chloroform, and I speak of it in its normal state. And now, gentlemen, I have given you a very meagre outline of the anatomy and physiology of the nervous system, simply to show you that the brain is the great nervous centre in man, and how exposed it is to suffering from a thousand physical causes, in addition to what it has to suffer mentally; and as in a previous paper I stated to you that *suffering* was the grand exciting cause of insanity, to those who had in them an insane neurosis, you will not be surprised that so many become insane; but your surprise will be that more do not become insane, again remembering the physiology of the nervous system. You will see that where there are so many causes, direct and indirect, for interfering with the healthy action of the brain, you will not be surprised at what I have stated, that I knew of no specific treatment for insanity. Therefore, I can only give you some general remarks. There is one symptom always present in all cases of insanity, although it arises from different causes, and that symptom is *insomnia;* no matter whether the cause be organic or functional; whether it be dependent upon the circu-

latory system, the organs of generation, the urinary organs, or the digestive organs, the motor nerves, or the sensory, the sympathetic or the vaso-motor nerves; in all cases of insanity you have insomnia, and your first care must be to procure for your patient sleep, and for this purpose you have various hypnotics, but you must be very cautious how you use them, for I have seen very great evil result from the use of this class of medicine, one I would mention in particular, and that is *chloral*. I speak of this from the difficulty of knowing the dose to prescribe in each particular case, and from the fact that I invariably find that after its effects have passed away it leaves the patient more excited. You have also beer, porter, brandy, whiskey, wine, the different preparations of opium and belladonna, &c. You know how these different hypnotics act as well as I can tell you, and you must be guided in their use by the cause that produces the insomnia; you would not give the same hypnotic for anæmia of the brain as for hyperæmia; you would not give the same hypnotic to a full-blooded over-fed man that you would to a half-starved, wretched creature. In all cases you would be guided by circumstances. All of these hypnotics you can give by the mouth, some you can give hypodermically, or by enema. Sometimes you will find that a sedative, such as bromide of potassium, or digitalis, will be the best remedy to produce sleep, particularly when the insomnia is excessive, with heart-palpitation, or due to the long-continued use of stimulants where delirium tremens was threatened, I have had patients recover, and the only medicine I gave them was five drops of the tincture of digitalis three times a day, and that for a few days only. Again, you will not press bromide of potassium if there is anæmia of the brain, whereas you will give it freely if there is any irritation of the organs of generation. Where the insomnia is due to psychosis, you will give a stimulating hypnotic, these are the cases where your beer, wine and brandy come into use.

I would speak of the hot bath as one of the best of sedatives, and indirectly a hypnotic, but even this remedy must be used with caution. In Paris asylums, however, they are used to an excessive degree, even to keeping a patient in them for twelve

consecutive hours, having him well fed, or as they say "stuffed" while in the bath.

I have no experience of this treatment, and do not desire to try it, any more than I desire to try their large doses of morphia by the hypodermic plan. Counter irritants will sometimes prove the very best hypnotic that you can use, particularly the mustard poultice over the abdomen. I have had patients go to sleep in a few minutes under the irritation of a mustard poultice, where all other hypnotics have failed to produce sleep. As a general rule, you will always find, at least I have always found, that in cases of insanity there is always excessive constipation; indeed I have generally found the large intestine impacted with fæcal matter, and this more particularly in cases of hysterical mania. Whether this is cause or effect it is very hard to say. I am inclined in many cases to look upon it as a cause, from the fact, that after a good purging of calomel and jalap, I have frequently found an insomniac sleep well, and not only sleep well, but recover without further treatment. When we remember the distribution of the sympathetic nerve and its numerous ganglia there is nothing far-fetched in supposing, that such impaction of the large intestine, causing continual pressure upon these nerves should act as an exciting cause of insanity, more particularly if the case be one of hysterical mania. When we are sure of what is the cause of hysteria. I will tell you the cause of hysterical mania. All I can say at present is that it is exaggerated hysteria; and it appears now to be generally admitted that it is due to some derangement of the ovaries. This view is strengthened by some authors stating that direct pressure made on the ovaries, through the abdominal parietes will arrest an attack of hysteria, I cannot speak of this treatment from observation, for although there may be no great difficulty in making pressure with the hand upon the ovaries, it would be a very different affair in a case of hysterical mania; indeed I have found that the less I touch these hysterical maniacs the better; for even the feeling of their pulse will, very frequently, excite them to a fearful degree, and much as I wish sometimes to examine their heart sounds to assist me in my diagnosis, I

abstain from the examination in consequence of the terrible excitement I have seen it produce. You will ask what are the other symptoms in hysterical mania necessary to be known to guide our treatment. In the second number of *Brain* there is an article by Milner Fothergill, M.D., (M.R.C.P.) on the "Neurosal and Reflex Disorders of the Heart," in which he says: "The circulation is closely linked with the emotions, not only the heart but the peripheral vessels with their large muscular walls. In joyous emotion we find the peripheral vessels dilated, the extremities warm, and the heart beating vigorously. On the other hand dread and anxiety contract the arterioles, the face is pallid, and the hands are chill, the blood-pressure in the arteries heightened, and the renal secretion is profuse." Again he says * * * * "Just as there are persons whose stomachs are easily deranged, others where the liver is readily disturbed; so there are those whose brains are quickly upset, and whose hearts beat excitedly from very slight causes." * * * * * "The heart was regarded by the older physiologists as the seat of the emotions, and it is certainly in intimate relation with the reproductive organs." You see then how necessary it is to know the state of the heart in a case that you suspect to be hysterical mania; you may, however, be pretty sure when you have the cold extremities, you have with that nervous palpitation, and you will at once perceive that the treatment in such cases must be both sedative and tonic. The best sedatives I have found in all cases of mania, particularly in the hysterical form, are bromide of potass. and digitalis, and the best tonics arsenic and nux-vomica,—of course, I speak as a general rule.

From time to time you see in our medical periodicals certain medicines as cures for epilepsy and epileptic mania. I have tried very many of these remedies, and I have seen better results from the mixture recommended by Brown Séquard than from any other medicines; as long, however, as we remain in ignorance of the cause of epilepsy we cannot place much confidence in any remedy. The following are the best remarks on the subject, I quote again from Eulenburg and Gutman: "The relation of epilepsy to the sympathetic system, is still

very obscure, on the whole the view formerly advanced by us appears lately to have gained ground: that many cases, especially of so-called peripheral epilepsy are of an angio-neurotic nature, and owe their origin partly to a direct, and partly to a reflex irritation of the vaso-motor nerves. Benedikt states that the epileptic attack is primarily caused by sudden spasms or relaxation of the vessels, and presents the most complete analogy to neuralgic attacks, only that here the irritation affects chiefly the vaso-motor nerves, and so leads directly or indirectly to anæmia or hyperæmia of the brain. He also thinks himself justified in assuming that the hippocampus major indicated by Meynest as the part affected in epilepsy is a vaso-motor centre, irritation of which, whether from the cerebral hemispheres or by reflex influences from the periphery, induces the phenomena of the epileptic seizure."

Nothnagel holds, on the strength of his formerly cited experiments, that the cervical sympathetic has a certain control over the actions of the pia mater, contraction of which is accompanied by contraction of the arteries of the brain, which have the same origin; and therefore believes that the epileptic seizure is the result of the anæmia of the brain consequent on the reflex contraction of its vessels. According to this theory the sympathetic plays a most important part in bringing on the epileptic attack, as most of the vaso-motor nerves of the pia mater are included either in the cervical part of the sympathetic or in the ganglion supremum. Other investigators (Schultz, Riegel, Jolly,) have not, however, confirmed the experimental grounds on which this doctrine rests.

When, gentlemen, we see such different opinions from the greatest physiologists and pathologists of the day, as to the cause of the epileptic seizure, we must see how uncertain is any mode of treatment. However, the deadly pallor that comes over the patient, with the cold extremities and feeble pulse just before the seizure, would lead us to believe that the sympathetic and vaso-motor nerves play an important part in the attack. My own experience of epileptic maniacs is, that they never recover; true, that they get over the maniacal attack, but for it only to

come on again, generally with more violence. I am not even prepared to say that any medical treatment will shorten these maniacal attacks, they seem to get over them just as well without as with medicine; putting them in the cell and leaving them alone seems to answer all purposes. But for the time being they are a most dangerous class of maniacs, and, as I stated to you in my paper on the Medical Jurisprudence of Insanity, so impulsive as never to be trusted. You must not suppose that all epileptics are maniacal, many, very many epileptics pass through life most intelligent men, and live to a good age and never show symptoms of insanity. These epileptics rarely apply for relief to medical men, and when they do they very soon get tired and give up treatment. There is a form of epilepsy, when not accompanied by mania, that you may keep in subjection by medical treatment, that is by attending to their general health, and every couple of months giving Brown Sequard's mixture for eight or ten days, changing it occasionally for *atropine*. I speak of that form that the French designate "*Petit Mal*." In this form the patient never falls to the ground, never foams at the mouth. They simply get a sudden spasm as they describe it, of the heart; the face becomes deadly pale, there is slight twitching of the eyelids and corner of the mouth, the person is still for a moment of time, and the fit passes off, very frequently in less than a minute. I have a patient, at present, in the asylum who is an epileptic maniac, and always knows when his severe fits are coming on by having these slight attacks which he calls "side shows."

I do not propose to give you in this paper, all the different forms there are of insanity, and the symptoms to be found in the different forms; to do so would take months daily lecturing. All I proposed was to give you a few general remarks applicable to nearly all cases, and that you should be guided in your treatment by general, well-understood, and recognized, medical principles, and that you should not be carried away with the idea, that certain medicines and a certain mode of treatment *cured* insanity and cured epilepsy.

I will now speak of the moral treatment applicable as a general

rule to all cases of insanity. A medical man or any one else whose duty it is to exert a moral influence over their insane patient, must not think he can do so by looking *stern* or *fierce* at them; that was a delusion in former days, but it is long since played out. We must begin with a feeling to our patient of pity akin to love, and the sooner we come to love our patient the better for the patient and ourselves; no action of our patient must ever shock our sensibilities, no matter how gross or unseemly that action may be. We must always remember that their whole thoughts and ideas are perverted, and that in virtue of their disease they are irresponsible beings, we must look upon all their acts and actions with a feeling as near as possible to the feelings of a mother when she looks upon the actions of her baby child. Whatever chance there is in gaining a moral influence over an insane person by kindness, there is no chance whatever by being cross and angry with them, or by punishing them. These remarks I wish to stamp deep in the memories of all those who have anything to do with the treatment or management of the insane.

When any organism is deranged from any cause, whether it be organic or functional, the first thing we must do is to try and procure *rest* for that organ. Therefore, the first thing we have to do in all cases of insanity is to procure rest for the brain, and this I believe is best accomplished, as a general rule, by removing the patient as speedily as possible from friends and from all their surroundings, and placing them in a well-directed and well-managed insane asylum, where they will meet with no contradiction to their insane views; where they will have no one to dispute with, or enter into discussions to try and convince them that they are talking folly, yet where they will at once feel that they are under both moral and physical control, the former always, the latter if necessary. It is astonishing how soon an insane person yields himself to the moral condition that pervades a well-managed insane asylum, and how seldom it is found necessary, even with the worst cases, to have resort to physical restraint. I would not have you to suppose that I am opposed to physical restraint, because sometimes it is actually necessary,

not only for the safety of others but for the safety of the patients themselves; but I would have you to believe that I would have such restraint the exception, not the rule. As such restraint very frequently, particularly if long-continued, only makes the patient more excited, the best restraint to an excited patient is to place him in a cell and leave him alone; understand, I do not mean a dark cell, for darkness is as pernicious to the insane as to the sane brain. In a paper I read at one time before this society, I said the best means to develop the youthful brain was by good feeding, good clothing, good air, and healthy exercise, in fact that you developed the brain as you did the bone and muscle of the body; now if this be the best means to develop the youthful brain, you can easily understand how it must be the very best means to re-create the diseased or disordered brain. Remember that suffering of one sort or other is the great exciting cause of a sane man becoming insane, and do not let your patient have any suffering that you can relieve him of. Give him all the amusement you possibly can to divert his thoughts from himself; whether that amusement be playing cards, or working in a garden, but let there be no compulsory labour. With regard to giving patients enough of good wholesome food, you may be sure as long as an insane person does not put up flesh, but daily diminishes in weight, he is not improving mentally; if you will have a strong mind you must have a strong body

I hope, gentlemen, from anything I have said you would not be led to suppose that I have given up my theory of heredity, on the contrary, the greater my experience, and the more I study the opinions of others, the more am I convinced of the truth of this theory, and in conclusion I will quote on this point some statements from very high authorities.

In the January number of the *Journal of Mental Science* (for 1879), there is an article headed "Researches in Idiocy, by J. MIERZEJEWSKI, Professor in the Medico-Chirurgical Academy of St. Petersburgh, translated by Dr. D. HACK TUKE," in which he makes the following statement: "The study of the anatomy of the brains of Idiots is a vast field accessible to

research, which may serve to throw light upon some questions of psychiatry hitherto obscure, but which possesses an undeniably practical value. It ought to enable us to comprehend better the questions which relate to *hereditary* insanity. It is undeniable that the vices of physical conformation of ancestors are transmitted to their descendants, and that this phenomenon is the *point de depart* of pathological varieties.

There are not only physical malformations, but also *moral* perversions, which are subject to the laws of hereditary transmission. We understand, in short, that moral perversions in the ancestors accompanying malformations of the brain are susceptible of being transmitted from one generation to another. We are disposed to admit equally the existence of anomalies of the brain in those individuals who present a predisposition to *hereditary* insanity."

I should have told you, gentlemen, that this is from the summary of a paper read by the Professor at the Paris International Congress of Mental Medicine, August, 1878.

In the first number of *Brain* for April, 1878, there is a splendid article on "Brain Forcing," by T. Clifford Allbutt, M.A., M.D., Physician to the Leeds Infirmary. I wish it could be placed in the hands of every school teacher in the world, and indeed in the hands of every parent. He makes the following statement, speaking of the brain; "Quality as I have said, cannot be had for the asking, it is fitful in its growth and often born out of due time. It should be favoured by the continuous inheritance of culture, but the mode of its epiphany lies in the same darkness with that developmental nisus which lies behind the advance of life upon the globe. *Inherited*, as it doubtless must be, yet its arising cannot be foreseen in the span of human generation." You see that I have not given you my belief in heredity any more than I have my belief that mind and body are one, on the contrary I have shown you strong reasons why I should adhere to these, which have been called by some of my opponents, "Dr. Howard's pet theories."

You will naturally say what benefit do you derive from my remarks, if all the insane are to be sent into the lunatic asylums.

But I only made this the rule, there are exceptions to it. There are those who will not let their friends be placed in an asylum, under any consideration ; and there are those, who, if placed in an asylum would receive more harm than good ; when you meet with those cases you will have to treat them in their own dwellings. You will then have to convert a part of the house into an asylum, in so far that you must separate your patient from the immediate family, and provide a good keeper and nurse-tender for them who will strictly carry out your instructions. Five different members of the society have had such cases, where I have been called in consultation, and each and every case have recovered their sanity. So you see it is necessary that you should give some of your attention to the treatment of insanity. I do not see why many cases of mental disorders should not be treated at home, and by any medical practitioner who chooses to treat them, particularly cases of puerperal mania, when removal is sometimes attended with great danger to the patient: but I also think, as I have already said, that the necessary physical as well as the moral force should be used, and the treatment that has proved efficacious in asylums, should be applied to similar cases when treated outside. But as a rule, for the reasons already given, I believe an asylum the best place for the treatment of the insane.

There is one thing, however, you can all do, and which you are bound to do, and that is to always remember that prevention is better than cure ; and it is for you to use your best efforts to prevent the increase of insanity by opposing with all your persuasive powers, brain forcing in both the young and middle-aged ; by, when you are consulted on the marriage question, honestly telling those who seek for your advice the danger to be apprehended from persons marrying where there is hereditary taint, by teaching men to live sober, chaste and cheerful lives, observing moderation in all things. Above all you must impress upon society that if we wish to diminish insanity and its twin sister crime, we must do so by diminishing poverty and ignorance. It is not yet established, and I am not prepared to say that it ever will be, that all criminals are insane, yet it is very hard to believe that a man can be *very sane* who forces society to deprive him of his freedom and place him under restraint.

FRACTURE OF THE PATELLA,

PLEURO-PNEUMONIA DURING CONVALESCENCE: THROMBOSIS OF PULMONARY ARTERY.

BY THOS. G. RODGER, M.D., POINT ST. CHARLES.

J. B., æt. 45 years, a tall, powerfully-built man, met with a fracture of the patella on the morning of the 20th of December, 1877. Nothing particular (transpired during the first month,) more than is commonly met with during attendance upon such cases, and at the end of that period I removed the splint appliances, and I put the knee-joint in a preparation of plaster-of-paris, which, by-the-way, the patient spoke of as being very comfortable. At this time union felt pretty firm, and everything in connection with the fracture seemed doing well.

On Monday, the 4th of February, the seventh week from the date of the accident, I was requested to visit the patient, and found that he had not been feeling well for two or three days, yet not sufficiently ill, as he thought, to seek for advice.

I found his face very much flushed, and he appeared somewhat excited and anxious; tongue coated, bowels constipated. He drew my attention to the large quantity of urine he had passed during the last twelve hours: filling six pickle bottles, sp. gr., normal, of good color, and no albumen. Pulse 120; temperature, 100°, respirations 40.

Has had no chill, no cough; there is no dulness on percussion behind, and only a few crepitant rales heard during deep inspiration, audible only for a time, then disappearing. Treatment ℞. Liq. ammon. acet. with tinct. digitalis, and poultices of linseed meal and mustard to the chest.

February 5th.—Face still very much flushed, and breathing hurried. Pulse 110; temperature, 99 2-5°. Bowels acted freely during the night. Complaining of pain in the right side on deep inspiration. Faint pleuritic friction-murmur to be heard at point referred to as seat of pain. Slept very little all night, and required to occupy a half-sitting position for comfort, owing to dyspnœa.

6*th*.—Patient somewhat easier this morning, and passed a better night, countenance also bearing a less anxious expression.

Pleuritic friction still distinct, though faint, but entire absence of cough, a few crepitant rales to be heard posteriorly at base of the lungs, but no dullness. Advised change of posture to-day; in fact have been urging so for many days back, but patient is afraid to move on account of fracture.

7*th*.—Temperature 100 3-5°. Pulse 120, and he is restless and nervous. Complains of suffocation, or tightness about the chest. Heart and lungs both examined, the former perfectly healthy, the latter not presenting anything more than already mentioned. Respiration hurried, dyspnœa considerable. Will not allow himself to be much disturbed, and has taken very little nourishment, but considerable alcoholic stimulants.

8*th*.—Much the same as yesterday, only that he has taken more nourishment.—Has been sitting up for a short time on sofa.

9*th*.—Still no change. Slept well during early part of last night.

10*th*.—Restless all night. Pulse, 120; temperature 101°. Again complaining of feeling of suffocation.

I asked Dr. Drake to see the case with me this morning and after examining the patient thoroughly, he agreed that possibly the symptoms were due to long confinement to bed, and again it was urged that the sitting posture be adopted.

Cardiac and alcoholic stimulants to be still continued.

10 p.m.—Pain in the side, very severe, administered gr. morph. mur. (hypodermically). Dyspnœa not so severe.

11*th*.—Has had a pretty good night, and feels comfortable. Face still still slightly flushed. Pulse 112. Temperature 100°. Pulse, 40. He has been lying on his right side since early morning, and says that he thinks that he breathes more freely in that position.

12*th*.—Did not sleep all night, very restless. Bowels moved freely early this morning. Temperature 102 3-5° Pulse 128; respirations, 50. Called Dr. Drake in consultation again to-day. Found slightly diminished resonance on percussion at the lower angle of both scapulæ, but on auscultation the respiratory

murmur is quite indefinite in character. No heart murmur can be detected, but the action of the organ is somewhat tumultuous in character. No cough whatever. Had a slight attack of syncopy this afternoon on sitting up to take a little nourishment; and again made reference to the feeling of suffocation, before referred to.

14*th*.—I was summoned very early this morning, the patient having been very restless all night, complaining of severe pain at the lower end of the sternum, and immediately below the right nipple. Again administered $\frac{1}{8}$ gr. morphia hypodermically. Pulse, 120; temperature 100°; respirations 45. 10. p.m. Still making complaint of pain at lower end of sternum, and below the right nipple. Speaks of the pain as being constant, attended with a feeling of tightness.

Ordered hot poultices of linseed and mustard, and left word with attendants that if the pain continued or became worse to send me word.

At midnight patient expressed himself as feeling much easier, and was about to have a poultice applied, when he was again seized with a syncopal attack, and before I reached the house, which was in a few minutes, expired.

Post-mortem, by Dr. Osler.

Patella is fractured in transverse direction, segments united by fibrous tissue. Some of synovial folds are injected, in spots hæmorrhagic.

Heart of average size. Clots in right auricle, and in the ventricle there is a small, tolerably firm, buff-coloured clot closely interwoven with the chordæ tendineæ. On slitting up the pulmonary artery, a firm thrombus occupies the trunk, adherent to the lower wall, and it extends into the right and left branches, not entirely filling their lumina, but closely united where in contact with the *intima*. On further dissection the thrombi can be followed into many of the branches of the 3rd and 4th degree. They are reddish-brown in colour, firm, not laminated, but of leathery consistence throughout.

Nothing of special note in left chambers.

In right pleura half a pint of turbid fluid; upper lobes crepitant and of good colour, and on section there are one or two spots of red hepatization. Pleura over the part inflamed.

No infarctions. Left lower lobe also dark, and but slightly crepitant, but no hepatization. Nothing of note in other organs.

CASE OF INTUSSUSCEPTION,

WITH SEPARATION AND PASSAGE BY STOOL OF 17 INCHES OF INTESTINE.—RECOVERY.

By L. Tremain, M.D., Edin., of Charlottetown, P.E.I.

Read before the Medico-Chirurgical Society of Montreal.

We are indebted to Dr. James McLeod of Charlottetown, Prince Edward Island, for the following very interesting case from notes taken at the time by Dr. Tremain. The specimen was shown at the meeting of the Medico-Chirurgical Society of Montreal, held on the 2nd May, 1879.—Ed.

On the 12th March, 1879, I was called to see Albert Best, aged 14 years, who had been ill for some nine days, suffering from constipation and pain in the abdomen. He had been under the care of another medical man, but in consequence of his absence I was requested to see the patient. I found considerable pain, some tenderness and tympanitic distention of the abdomen. There was no fever, the surface of the body was cool, and his pulse not over 80. I was informed that he had had no passage from his bowels since the 2nd March. There was a look of much anxiety, he had been vomiting freely during the day, and I was shown a chamber utensil, which was half full of vomited matter, thin and feculent. This was the third time he had vomited a quantity of matter similar in quality.

Before I saw him, I was informed that he had had several enemata, and some purgative medicine, but no result had followed except the discharge of some hardened masses from the lower bowel. Hot fomentations had been used freely and constantly. I ordered immediately large enemata of warm water, and repeated them frequently throughout the treatment, at the same time I ordered six powders of calomel and opium, which were repeated every four hours. I saw him frequently throughout the three following days, during which time the treatment consisted in the administration of opium, without the calomel, hot fomentations over the abdomen, and enemata. On the 16th his bowels were freely moved, which gave much relief, and he took nourishment

which he retained. During all this time there were no decided symptoms of inflammation, his pulse was never over 90, and the temperature was almost normal; but there did exist tenderness on pressure over the abdomen. On the 16th he appeared to be doing well, and the following day he got up and dressed. This indiscretion was followed on the 19th by a tendency to diarrhœa, which was, however, arrested by the use of opium.

On Saturday, 22nd March, he suffered from some discomfort and pain in the abdomen; his bowels had not moved for two days, and his friends gave a cathartic pill, and, as there was much pain fomentations were applied and a dose of solution of morphia given in the evening. The following morning, Sunday the 23rd, he had a free motion and passed by stool a portion of intestine, after the passage of this, he had two more motions, liquid in consistence, no blood but feculent in character, after which he was free from pain, and slept well during the night. I had not seen the patient since the previous Wednesday, as at time he appeared to be convalescing, and I ceased my attendance. On Monday, 24th March, I was again requested to see my patient, his friends being anxious about what had been passed by stool. They kept it for my inspection and at the visit I found him looking much better and stronger. There was some soreness of the bowels, on pressure over the abdomen, but perfect absence of all pain, his pulse was about 75, skin natural, tongue clear, and he was taking his food with a relish. He felt so well that he desired to be up and dressed, but I deemed it more prudent to keep him still in bed. The following day, Tuesday, he was much in the same condition. Had a stool in the evening accompanied with some pain, which was relieved by a draught of solution of morphia, and he passed a comfortable night; from this time he gradually recovered, and is at present in fair health.

I will now endeavour to give a description of the portion of intestine passed: When laid on a flat surface it measured seventeen inches in length, attached to its outer surface was a portion of the mesentery about 2½ inches in width; the diameter of the tube varied from 1½ inches, at its smallest end, to three inches

at or about its centre. The smallest extremity was dark and easily broke down when handled; it was considerably fringed. The cavity can be filled with water, when it presents the usual appearance of a portion of bowel. There was no appearance of exudation of lymph on the peritoneal covering; with the exception of one extremity the color was that of normal bowel, though darker than in the healthy state, and was firm in consistence, the valvulæ conniventes being well seen. The portion of bowel I secured at the time of my visit on Monday the 24th, and after cleansing it preserved in a mixture of carbolic acid and alcohol, for the purpose of sending it to the museum.

Charlottetown, P. E. I., April 20, 1879.

Hospital Reports.

MEDICAL AND SURGICAL CASES OCCURRING IN THE PRACTICE OF THE MONTREAL GENERAL HOSPITAL.

MEDICAL CASES UNDER DR. OSLER.

I. *Miners' Phthisis.*

Reported by Mr. Rankine Dawson.

J. T., æt. 60, native of Cornwall, admitted April 16th.—Father, a miner, died at the age of 63, of consumption. Mother at age of 85. Has worked in mines since the age of 14; in lead and tin until 15 years ago, when he came to America, and since then has worked in copper, zinc and plumbago mines. Has enjoyed good health during the greater part of his life. Is a moderately temperate man. About three months ago noticed a slight cough, which has persisted ever since. He has failed gradually in health and strength, and has not been able to resume work. On March 3rd, came to Lennoxville where he remained twelve weeks, and then came to Montreal. Has attended the out-door department of the Hospital for three weeks.

April 18th.—Examined for the first time.

An elderly, moderately emaciated man; appears to prefer the sitting posture. Face and hands a little suffused, as if capillaries were over-full.

Chest.—On inspection right side somewhat sunken in front, and does not expand so freely as the left. On percussion, dulness for three fingers' breadth below right clavicle, clear over 3rd and 4th ribs, dullness again below, merging with that of the liver. Clear note at left apex in front and over both bases behind. On auscultation, cavernous breathing at right apex, with a loud click at end of inspiration. Expiration is prolonged and accompanied by whistling râles at the left apex and at the bases. Breath sounds are feebler in left than in right scapular region. Expectoration viscid and glairy. Heart's impulse cannot be felt, dullness much diminished. Sounds normal. Pulse 90, feeble; temperature normal. Bowels regular; urine dark-coloured.

During the evening he sank rapidly, respirations became shorter, heart's action feeble, and he died about midnight

Post-mortem.—In abdomen, liver depressed, reaching nearly to the navel. In thorax, left lung extends over beyond the middle line; no adhesions on this side; right lung universally adherent.

Heart.—Right chamber full of blood and clots; 20 ozs. escaped on removal of the organ. Right auricle large; tricuspid orifice dilated, measuring over 15 Ctm. in circumference. Right ventricle dilated and hypertrophied; chamber measures from pulmonary ring to apex 15 Ctm., wall, about middle, 7 m. in thickness. Left ventricle appears of normal size. Valves healthy. Weight of organ 445 grms.

Lungs.—Moderately dark in colour. Left crepitant, except at one area behind. Pleura covering the lung uniformly dark, except at the posterior part of lower lobe, where it is thickened and of an opaque-white colour. Entire upper and anterior part of lower lobes emphysematous. A number of small firm spots can be felt, and these on section of the organ are seen to be dense fibroid areas, excessively pigmented. Except in these spots, and about the vessels and bronchi, the lung tissue is not of a dark, but rather of a slate-grey colour. Behind in an elongated area, extending through both lobes, measuring 18 by 6 Ctm. and 4.5 Ctm. in depth, the lung tissue is converted into a firm fibrous mass of inky blackness. On section it cuts with resistance,

surface smooth, but in places there are small irregular spaces as if the tissue were breaking down. They could not be traced in connection with bronchi and contain dark-coloured fluid.

Right lung.—Pleura very much thickened over antero-lateral regions, not so much so at posterior part and about the root. At the lower and front part there is an encapsulated pleurisy, about the size of the palm of the hand, containing 5 to 6 oz. of clear fluid.

On section of the organ a cavity, the size of an orange, half-filled with purulent matter, is found at the apex, occupying chiefly the posterior part. It has very thick walls, especially in front, where the pleura is greatly developed. Very few trabeculæ exist on the walls and none cross the cavity. A long extension from it passes downwards and forwards towards the middle lobe. The extreme apex and the entire anterior margin are composed of dense, firm, excessively pigmented fibrous tissue, which also surrounds the cavity in its lower and anterior parts. Middle lobe is emphysematous, lower lobe crepitant; on section numerous fibroid and pigmented areas as in other lung. At its anterior margin it is compressed by the encapsulated pleurisy above referred to. No caseous masses in either lung. Mucous membrane of bronchial tubes thickened; they contain a good deal of secretion. Bronchial glands pigmented and hard, none caseous. Nothing of special note in the other organs.

Remarks.—This case supplements in an interesting manner the one I reported in this journal in 1875, in which the disease was in an early stage; and fully sustains the statement then made—from an examination of three specimens—that "in its essence the disease would appear to consist of an overgrowth—a hyperplasia—of the fibrous tissue of the lungs induced by the chronic irritation to which they are subject by the inspired particles of carbon, a veritable cirrhosis, or, as it might appropriately be called, the black cirrhosis of miners." The detailed histological description will appear in the forthcoming Pathological Report of the Hospital.

II.—*Acute Bright's Disease in a child. Remarkable persistence of blood-corpuscles and casts in the urine after disappearance of Albumen.*

Reported by Mr. Andrew Henderson.

R. B., æt. 5, an inmate of the Ladies' Benevolent Home for the past two months; previous to which time he had suffered great privations. Admitted to Hospital April 1st, with dropsy. Had been ailing for a few days before admission, but, owing to the illness of the Matron of the institution, no satisfactory account could be obtained of this period of his illness. According to Dr. Wilkins there were no evidences of diphtheria or scarlet fever. When admitted there was general dropsy; urine scanty, bloody and albuminous, specific gravity 1040; and pain in lumbar regions. Heart's action much increased. Temperature 101°. Vomited a good deal.

April 3rd.—Urine 12 oz., sp. gr. 1030; contains blood and albumen. Temperature, 101°.

5th.—Swelling of arms and face almost gone. Urine 15 oz. Less albumen. Heart's action not so violent.

7th.—Case transferred to Dr. Osler. Urine 24 oz., clear, light-coloured, no albumen. Temperature 99°.

9th.—Examined carefully. Skin soft, no signs of desquamation. Throat normal. Dropsy has entirely disappeared. Nothing special observed in examination of heart, lungs and digestive organs. Urine 26 ozs. contains no albumen, but blood corpuscles and casts exist in the sediment.

12th.—23 ozs. of urine; no albumen. Fine granular casts, and blood corpuscles; latter not in sufficient numbers to colour the urine, four or five can be seen in each field of the microscope.

18th.—Urine examined each day. Casts persists in considerable numbers. No albumen. Blood corpuscles not noticed to-day.

23rd.—23 oz. of urine; no albumen. Sp. grav. 1008, very clear and watery-looking. Blood corpuscles but no casts.

24th.—20 oz., dark and more natural-looking in colour. Albumen in small amount for the first time since the 5th.

27th.—20 oz., sp. grav, 1010. Blood corpuscles and casts still to be found. No albumen.

29th.—Still a few blood corpuscles to be found in each field of the microscope. No casts.

May 8th.—Urine has been normal during past week. Patient removod to the Home quite well.

Reviews and Notices of Books.

The National Dispensatory,—containing the Natural History, Chemistry, Pharmacy, Actions and Uses of Medicines,—including those recognised in the Pharmacopœias of the United States and Great Britain.—By ALFRED STILLÉ, M.D., LL.D., Professor of the Theory and Practice of Medicine, and of Clinical Medicine in the University of Pennsylvania, and JOHN MAISCH, Ph. D., Professor of Materia Medica and Botany in the Philadelphia College of Pharmacy, with two hundred and one illustrations. Royal 8vo. pp. 1628. Philadelphia: HENRY C. LEA, 1879.

We well remember when we were students the United States Dispensatory by Wood and Bache. In those halcyon days it was looked up to with great respect as an authority upon all matters pharmaceutical and even therapeutical. Neglect, however, to issue it under successive editions, to keep it *au courant* with the latest advances of Medical Science on the branches within its domain, has cast it into comparative unfitness for the present times. Its place is well taken by the National Dispensatory recently published from the press of Lea of Philadelphia. This last work is upon the same model as its predecessor. Like it, and indeed like all other "Dispensatories," the alphabetical order of taking up the description of the remedies included is that which is adopted. This has the advantage of facilitating reference; and is free from the objections so easily raised against any system of classification. Contrasted with the older treatise, this one is certainly far superior. Without entering into minute details, it may be safely said to be better because it is more comprehensive. It includes, as the title states, the medicines given not only by the United States' Pharmacopœia,—but also those contained within the British one. The extent of the work may be inferred from its containing 1628 pages, 8vo. It has also the indispensable requirement in a standard work of being modern, that is to say presenting the reader with information upon the various subjects quite up to the day. New remedies of any worth, and the latest preparations which are

anised will be found in their respective places, set forth in a clear and masterly way. As an example we may mention Ferrum Dialysatum, or Dialysed Iron. In vain might the inquirer turn over the pages of other works on Materia Medica for a satisfactory account of this popular agent. In the learned volume, however, before us, there is in two pages an admirable digest of what one would like to know on the subject. Any work, pharmacological or medical, in which Dr. Stillé has had a hand, would commend itself to the favorable consideration of all who know anything of his great abilities. His able work "Therapeutics and Materia Medica" is a monument of his research and industry and talent. We know not what special part devolved upon his associate, nor have we before made his acquaintance; but, from the general goodness of the articles and the apparent equality of merit in their treatment, we conclude that he is if not "a foeman worthy of his steel,"—a collaborateur worthy of the pen of his senior. We need hardly say the getting up of the work is as excellent as of others that have been issued by the same well known publisher.

Clinical Lectures on Diseases peculiar to Women.—By LOMBE ATTHILL, M.D., Master of the Rotunda, Dublin, &c., &c. Fifth edition, revised and enlarged, with illustrations, 8 vo. 342. Philadelphia: LINDSAY & BLAKISTON, 1879.

This excellent manual is from the pen of a thoroughly practical man who has enjoyed unusual opportunities as Master of the Rotunda Hospital, Dublin. The work has received universal commendation, and on the subjects treated of in these pages, it remains unrivalled as an instructor.

The work consists of seventeen lectures, which we presume form the base of the course delivered by Dr. Atthill before his class. In the first lecture we have, after a few introductory remarks, some very excellent hints on the method of conducting an examination in cases of diseases of the uterus, or vagina; these consist essentially of digital examination, the use of the speculum and the uterine sound. The author points out the necessity of examination both by touch and sight to facilitate an accurate diagnosis. Leucorrhœa, va tis and vaginismus form

gini

the subjects in the second lecture. In this are given some practical suggestion in the management of that almost constant pruritus which is so distressing a feature in these affections. In the ensuing four Lectures, the derangement of menstruation are discussed, after which, we have two Lectures on uterine polypi and uterine fibroids. The author then passes on to the consideration of inflammation of the cervix uteri, both acute and chronic, endometritis and endocuvicitis; we next have lectures on displacements of the uterus, enlargements of the uterus, the varieties of cancer with the treatment.

There are two lectures on ovarian disease, cysts, unilocular and multilocular, and dermoid. Ovariotomy is then discussed, and the statistics of the results of the operation. He gives the wonderful success of Mr. Spencer Wells, showing the steady decrease in mortality of the operation in the practice of that surgeon, who reports a mortality of only fourteen per cent. in his private practice. On this subject the author remarks: "I cannot but feel that no small portion of this success is due not only to the dexterity of the operator, but to the skill which he has exhibited in selecting suitable and rejecting unsuitable cases, a dexterity and skill which all cannot hope to attain, and I fear that the average of all the operations undertaken in Great Britain, will still show a considerably higher mortality than that here recorded."

The remaining two lectures are devoted to uterine therapeutics. These lectures throughout are written in a most pleasing style, full of interest and practical instruction, and we freely commend the work to our readers. It is to be had of Dawson Brothers, St. James Street.

Medical Chemistry, including the outlines of Organic and Pathological Chemistry. — Based in part on Riché's Manual de Clinic. By C. GILBERT WHEELER, Prof. of Chemistry in the University of Chicago, &c., &c. 8vo. pp. 424. Philadelphia: LINDSAY & BLAKISTON; Chicago: J. S. WHEELER, 1879.

This is a valuable addition the many works on Chemistry which have issued from the press during the past few years. The

author in publishing it trusts, "that the necessary conciseness, "in method and form of expression," has not in any way affected the clearness and comprehensiveness of the arrangement. He states that it would have been easier to prepare a larger work, but that as this is intended for advanced students, or at least for those who are familiar with inorganic chemistry, he confined himself to what was essential without encumbering "the work with a re-statement of that which appertains to the theory of chemistry in general."

The first part of the work is devoted to the subject of organic chemistry, and in the second part animal chemistry is discussed, in which will be found the chemistry of digestion, and of the various substances connected with that process. The chemistry of the blood, respiration, animal heat, muscular action, and also of the various secretions, as the urine, sweat, milk, soft tissues, osseous substance, dental tissue, and also exudations. The author makes use throughout of the metric system, and the temperatures indicated by the centigrade scale. We commend this little work to our readers, it contains much material that is not to be found in other chemical text-books. It is very neatly issued from the press on good heavy toned paper.

Health Primers.—No. 1. Exercise and Training. No. 2. Alcohol, its use and abuse.—By W. S. GREENFIELD, M.D.—No. 3. The House and its surroundings.—No. 4. Premature Death, its Promotion or Prevention. New York: D. APPLETON & Co., 549 and 551 Broadway, 1879.

With a view to popularize as much as possible the all-important subjects relating to health, a series of concise primers have appeared in England under the editorial management of J. Langdon Down, M.D., Henry Power, M. B., J. Mortimer Granville, M.D., and John Tweedy, F.R.C.S. Some fifteen subjects have been selected in the series, and the contributors are already known to the profession as writers of eminence. The first four primers of the series have appeared on this side of the Atlantic, being republished by the Messrs. Appleton & Co. The objects of the writers are in every way commendable,

as their efforts will stimulate the public at large to know how to avoid disease. What a vast amount of misery, disease and death might be saved to the human family by even a smattering of knowledge on health subjects. These health primers are short, concise, and written in a popular style, and within the reach of all. We trust they may be largely circulated and largely read. They inculcate, line upon line and precept upon precept, what is best for the maintainance of the minds and bodies of men in a perfect condition of health. These little books are full of instruction, and should become generally known. These little primers are to be had at a nominal price, and we hold that such a series of useful books will be of incalculable benefit to the public generally, and that a careful perusal of them will recall many facts in regard to our organization which ought to be widely disseminated. They are to be had of Dawson Brothers, St. James St.

American Health Primers.—Hearing and how to keep it.— By CHARLES H. BURNETT, M.D. 12mo., pp. 152. Philadelphia: LINDSAY & BLAKISTON, 1879.

As we remarked above, for the purpose of instructing the public generally in what concerns our perishable bodies, a number of gentlemen in England associated themselves together and issued a series of health primers. A somewhat similar commendable scheme is being followed on this side of the Atlantic. Our American friends fully appreciate the value to the public of making known what is hurtful to both body and mind; and in giving to the American reader what will be found of great value, they have determined to publish a series of popular works on subjects distinct and separate from those selected by the English writers. The first of the series is before us. It is divided into three parts having several chapters in each part. In part one we have described in familiar language the anatomy and physiology of the ear. In part two will be found described the chief diseases and injuries of the ear. This is given in such a style as to indicate the avoidance of improper treatment. In part three is given the

general hygiene of the ear. This little work is written by a gentleman who is aurist to one of the hospitals in Philadelphia, and also consulting aurist to the Pennsylvania institute for the Deaf and Dumb. It is full of instruction, and will be found to fulfil the object desired in its publication.

A Clinical Treatise on Diseases of the Liver.—By Dr. FRED. THEOD. FRERICHS, Prof. Clinical Medicine in the University of Berlin, &c. In three volumes. Vol. 1, 8vo. pp. 224; Vol. 2, pp. 228; Vol. 3, pp. 226. Translated by Charles Murchison, M.D, F.R.C.P., &c. New Nork; WM. WOOD & Co., 27 Great Jones St., 1879.

These three volumes form a part of the Library of Standard Medical authors which are being published by Messrs. William Wood & Co., of New York. These volumes will be regarded with more than usual interest at the present time, as both the author and translator have been removed by death. Still, this work remains a monument of accurate observation and untiring industry, a reliable book of reference in diseases of the liver. Written nigh twenty years ago, the information contained is as fresh and applicable as though its publication carried with it all the freshness of a new work. There are numerous illustrations on wood, and on the frontispage of each volume will be found a coloured lithograph. Many of the figures here portrayed are copies of plates which were issued to accompany the English translation of the work which appeared some years back in the New Sydenham Society. We regret to observe that some of the wood engravings in the text of these volumes are very poor, indeed we think they mar the appearance of the work, giving to it an unfinished cast which is not in keeping with the general get up of these volumes. It is true that those volumes are issued at a nominal price, and therefore we are not to expect too much. This we admit, but we should be far more contented to see the illustrations left out altogether, than to have the entire volumes spoiled by second or third-class wood cuts. We should be sorry to damp the ardour of the publishers by uncalled for observations on this subject. We make these observations believing as we do that kindly criticism is beneficial in every

way, and that it will in all likelihood call attention to what may have been an oversight in examining the work done before admitting it to publication: that is excluding or refusing to receive work of this nature which is not up to the level of a skilled workman. Frerichs on the liver is so well known and so generally appreciated by the profession that no observations as to merits are demanded at our hands. We need only in conclusion remind our readers that three monthly volumes are coming to hand with regularity. We have before alluded to the scheme as proposed and being in good faith carried out by the Messrs. Wood of New York.

An Atlas of Human Anatomy, illustrating most of the ordinary Dissections, and many not usually practised by the student.—By RICKMANN JOHN GOODLEE, M.S., F.R.S. Quarto. part 1st, four plates. Philadelphia: LINDSAY & BLAKISTON, 1878. Montreal, DAWSON BROS., St. James Street.

We have seen the first fasciculus of the American reprint by Lindsay & Blakiston, of Philadelphia, of Mr. Goodlee's plates, and we are well pleased with them. The possessor of a Maclise or a Lizars might imagine that he had all that was desired in the way of plates, but these plates are entirely different from any of their predecessors. Though artistically not so fine as Maclise's, anatomically they are quite as correct. Their peculiar utility lies in the fact that they represent dissections not usually made by either teacher or student. Inasmuch as the surgeon must be prepared to cut everywhere and anywhere, it behoves him to let his studies extend beyond the limits of dissecting-room routine.

Tablets of Anatomy and Physiology.—By THOMAS COOKE, F.R.C.S. Second edition. Longmans, Green & Co.—Tablets of Physiology.—By same author.

These tablets in book form are now making their debut amongst the members of the profession in America. However, they are old friends of ours, and we know their usefulness. The student will find that Mr. Cooke's teaching is very exact, very clear, and best of all, very condensed. We should advise no

student to depend entirely on a book of this sort. The author does not wish him to do so, but he should use his tablets to refresh his memory before presenting himself for examination. The physiological tablets we like very much. The student of to-day has so much theory and conjecture to deal with that he will hail with delight the appearance of this book, which supplies him directly with the acknowledged facts of Physiology. We recommend students to provide themselves with the tablets on Embryology, for they will thus gain great assistance in mastering this difficult subject.

Habershon on the Alimentary Canal. Second American from the third enlarged and revised English edition. Philadelphia: HENRY C. LEA, 1879.

We can do very little to add to the favourable reception which has already been given by the Medical press of the world to this well known treatise. We however, remind our readers that this is a new edition of a work for which the demand was so great that previous editions were rapidly exhausted. The author has taken the opportunity of the book being out of print for some years, to embellish what he has already written, and to add new matter of very considerable importance.

We commend to all practitioners a careful perusal of Dr. Habershon's work. More especially, we draw attention to the number of cases of intestinal diseases recorded in its pages, cases of extreme interest clinically and pathologically. This careful record shows that this work is no complication, but a careful exposition of the author's personal experience.

An Introduction to Pathology and Morbid Anatomy.—By T. HENRY GREEN, M.D., Lond., &c. Third American from the fourth revised English edition. 8vo., pp. 331. Philadelphia: HENRY C. LEA, 1878.

This work has received an addition of much new matter which renders it more complete. All the chapters have been carefully revised, and the number of illustrations have increased. We have on a former occasion noticed at some length this excellent treatise which still retains its position of being a favorite text-book.

Extracts from British and Foreign Journals.

Unless otherwise stated the translations are made specially for this Journal.

Intestinal Obstruction and Death.—(Fatty change (and failure) of the muscular wall of the gut, as a direct, and indirect cause of intestinal obstruction and death. By FOURNEAUX JORDAN, F.R.S., Surgeon to the Queen's Hospital, professor of Surgery at Queens's College, Birmingham, Consulting Surgeon to the Women's and the West Bromwich Hospitals.)—For several years past, I have from time to time seen cases in which, with, perhaps no premonitory symptoms, continuous vomiting and tympany, lasting one, two, or more days, have been followed by death. While these symptoms appeared in some cases to come on spontaneously, in others and and I think, more frequently, they followed some abdominal or pelvic operation. The case, as a rule. happened in fat persons, in persons with large abdomens, in persons with signs of degeneration in various organs and with a history of habits which lead to visceral changes. Examination ef the bodies disclosed great internal accumulations of fat, and occasional indications of visceral degeneration, but, curiously, no obvious or recognized cause of intestinal obstruction. In all the cases, the intestinal canal was greatly loaded with fat, and presented a strikingly yellow appearance; in some cases, indeed, it seemed to be simply a tube of fat. In one case the microscope conclusively showed that the unstriped muscular fibres of the bowel were converted into fat. In observing and reflecting on these cases, of some of which I shall speak later, I have arrived at the following conclusions:

1. The smooth muscular fibres of the bowel are subject to fatty degeneration, which may become more or less complete; and that, consequently, they may, and do in given cases, wholly cease to contract.

2. This fatty change of the essential element of the gut-wall when it ends in complete cessation of contractility, causes death by intestinal obstruction. Fatty failure of the intestines being in some cases extensive in area and reaching high up towards

the stomach, the ensuing obstruction is acute, the vomiting incessant, and death early. In other cases, there may be less complete, or more limited, or irregulary distributed fatty change; and there will follow a slower or more fitful stream of symptoms and a later death.

3. Fatty transformation in the gut is more likely to appear (though perhaps not exclusively) in fat, especially very fat persons; in those who from natural tendency, are liable to have fatty degeneration of other organs, especially of the heart. Death in heart cases is quick and direct; in intestinal-cases, slower and more indirect, but nevertheless very certain.

4. As premonitory syncope or exhaustion may happen from time to time before death from heart-fattiness, so "attacks" of obstruction may run before final obstruction from intestinal fattiness.

5. Failure of the bowel is helped on by continued flattulent distention, however it arises; the altered muscular fibres being so injured, by overstretching that they never regain their functional contractility. Herein may be traced a likeness to atony of the bladder, where, it is well known, long-continued distension is in certain cases followed by entire loss of contractility; and it is not unlikely that fatty conversion of the muscular wall of the bladder is the basis of certain obscure cases of retention and cystitis coming on after middle age. It is conceivable that healthy gut may become the subject of fatal atony from long-continued stretching; but some, however slight, fatty change would, greatly favor such a result.

In a limited number of cases, death is due directly to failure of intestinal action, and may come with obviously exciting cause. The muscular fibre is now no longer muscular. In a large number of cases, death comes more indirectly from some immediate shock to the abdominal organs. In strangulated hernia, when fatty bowel is present, the blown-out tube never again contracts. The vomiting continues, or returns, and death follows, notwithstanding that reduction has been easy and complete, and that there is no inflammation, or gangrene, or other cause of death. All injuries and operations in persons with failing gut are liable

to be followed by vomiting, which ceases only with death. Especially is this so on operations on the abdominal or pelvic organs. Herniotomy and lithotomy are now and then followed by fatal vomiting, and subsequent search brings nothing to light; no injury to the peritoneum, no hæmorrhage, to the inflammation, no other lesion; nothing but hugely distended bowel.

The case which led me to believe that, in certain instances death begins in the gut from entire cessation of action in the intestinal muscular fibre, and that the cessation was due to fatty degeneration, I now briefly cite.

Several years ago, a lady so stout that she had long been confined to her room—the staircase of her house was also narrow and awkward—without any previous complaint, began to vomit. The vomiting, at first occasional, became incessant and fæcal in character, and she sank in two or three days. I examined the the body. The intestinal canal was from end to end enormously distended with gas, but there was nowhere any localized obstruction of any kind. The bowel was strikingly yellow in appearance; and the amount of fat, not only on the body, but within the abdomen, could only be described in words that would savour of carricature. After the most careful examination, no other appearances could be found to account for death.

Another case which made a vivid impression in my mind, was that of an exceedingly stout man. He got out of doors a little in a specially made phaeton with a bottom so low that it just cleared the road, and was reached with one short step. Without injury or premonitory incident of any kind, symptoms of intestinal obstruction (sometimes urgent and sometimes with intervals of ease) set in, and in a few days he died. A very yellow distended bowel was seen; indeed, I remarked in this case, as I have in others, "The bowel seems a tube of fat." The distension was not uniform, but more in some coils than in others. There was, however, no band, or twist, or stricture, or cause of obstruction of any kind. I had not yet concluded that death might be caused by fatty failure of the gut. I was more supicious, and afraid that it might be so, or I should have called in the aid of the microscope.

In a case of strangulated hernia, in a very stout man, the bowel was reduced easily and with marked gurgling, and for a few hours he seemed better, but vomiting returned, and he died. On examination no inflammation, or gangrene, or aparently adequate cause for death was found. The abdominal organs were greatly loaded with fat. The heart was somewhat softer than natural. The extreme yellowness of the bowel so struck me, and my reflections and fears had now taken so clear a shape, that I determined to have a microscopical examination of the muscular fibre of the bowel. This was carefully made for me by an experienced microscopist, Dr. Wood (one of our staff), and left no doubt of the marked fatty change in the suspected structure. Dr. Wood did not content himself with the appearance of the fatty intestine; he examined portions of health intestines, and found a striking contrast.

Not long ago I had two cases of lithotomy, both of which ended fatally within twenty-four hours, after several hours of incessant vomiting. The cases were singularly alike, a description of one will serve both. A big fat "drinking" man of sixty had enlarged prostate and large vesical calculus. There was no tangible evidence of renal or other visceral disease. There was no peculiarity in the operative steps to account for the result. I could not to-day alter any single step in the operation for the better. He was free from hæmorrhage or marked shock. His condition for a few hours was quite comfortable; then occasional vomiting set in, and tympany of the abdomen appeared. The vomiting became frequent and was associated with great exhaustion, and ended fatally. In a subsequent examination, a description of the appearances would answer for both bodies. The internal organs were loaded with fat; the heart was somewhat pale and soft; and the kidneys were not healthy. The intestinal canal was singularly and uniformly yellow, and everywhere enormously distended. There was no signs anywhere of inflammation, or peritoneal injury, or extravasation of blood, or infiltration of urine.

I believe the operation here destroyed the vitality, so far as contractility was concerned, of the bowel. Flatulent distension

followed, and irratrievably spoiled the gut. This condition, affecting all or a large portion of the canal, and affecting it even to the vicinity of the stomach, was practically a condition of acute, high up, and complete obstruction.

Here the question naturally arises, what are the customary explanations now and heretofore, of the causes of death after continuous vomiting which follows the reduction of strangulated hernia, which follows also operations for uncomplicated herniæ, which follows lithotomy and other operations on the pelvis and abdomen. The very variety of the explanations testifies to their improbability. One says shock; another says shock with feeble heart; another says ether or chloroform vomiting; another says rapid septic poisoning; another says incipient peritonitis. I am far from saying that these, or some of them, are inadequate causes of death under certain circumstances; but they do not satisfactory account for death in the cases I bring forward. In pure shock, with or without cardiac degeneration, vomiting is rare; in cases of say, crushed knee-joint, or amputation at the hip, or even in severe abdominal injury (in healthy persons), nervous muscular action dwindles down to death without vomiting. That ether or chloroform vomiting should recur after some hours of comfort is at least hypothetical; hypothetical is also rapid septic poisoning without rigor or rise of temperature, and any other likeness to the known septic state. Peritonitis without the slightest sign of peritonitis is too metaphysical a pathology to grasp. In fatty change and a consequent failure of the gut, we have an explanation which is based on clinical and microscopic observation, which clears up all difficulties, and which is consistent with known pathological laws.—*British Medical Journal.*

Therapeutic value of Croton-Chloral.—In a very interesting paper read before the Ulster Medical Society, Dr. Riddell, (*Dublin Medical Journal*, April, 1879), reports his experience of the great therapeutical value of croton (butyl) chloral. He mentions first a case of severe paroxysmal headache ineffectually treated for many years by all the great guns of the *Pharmacopœia*, but cured by five grains of butyl-

chloral twice daily and ten grains taken at night dissolved in spirits of wine and glycerine, with a little acid and syrup of orange to cover the flavor. The patient continues the five-grain doses at night, and now enjoys better health than she has done for years. Since that case, Dr. Riddell says they have used it largely—sometimes failing, sometimes relieving—till, by keeping an account of all his cases, it began to be clear, which were most benefited by the drug.' Since then, the number of cases relieved (some permanently) has increased. These cases are: headache in females arising from mental distress; those cases of headache frequent at the menopause—in fact all those called neuralgic, except a few arising from internal mischief, are benefited and in many instances cured. In that distressing species of neuralgia called tic douloureux, he has found it in many cases acting like a charm. Of course, he does not include any arising from cranial or intercranial causes. He has tried it in neuralgia of the ovaries, but no good resulted. In insomnia, it is not so reliable, as the hydrate; but in some cases where, the loss of, or inability to, sleep is accompanied by a weak or fatty heart, it is to be preferred, as it has no weakening effect on the central organ of the circulation. In one case of delirium tremens, where the circulation was very feeble, the combination of croton chloral with digitalis had a wonderful effect, and it seemed as if the drugs could be given together in much smaller doses to produce the same results than singly. In this, he pushed it from ten to thirty grains every three hours, with drachm and two-drachm doses of the infusion of digitalis. In pain arising from caries of teeth, he has found it useless in most cases, and in all inferior to Richardson's "tinctura gelsemini"; but in one case of a nervous young lady, by giving her two ten-grain does, he was able to extract a tooth next to painlessly, to her great satisfaction. In these cases, it is in affections of those parts supplied by the fifth pair of nerves that it is of most use; but to be of service, the drug must be given in far larger doses than prescribed in the *Pharmacopœia* for adults, five grains three or four times daily, gradually increasing if required; if stimulants be wanted, dissolve it in rectified spirit; if not, dissolve it in

glycerine. In all cases complicated with hæmorrhoids, give glycerine. If anæmia exist, combine it with iron, or what he believes better, arsenic; then gradually lessen the chloral, in all cases he has found it better to give it in solution than in powder or pill. Dr. Riddell mentions also severe pain with photophobia, and blepharospasm after injury, in which atropia failed, but ten grains of butyl-chloral repeated in an hour gave complete relief; and a case of acute painful facial carbuncle, in which the effect of ten grain doses every three hours was "simply marvellous," the disease going through its subsequent stages almost without the patient knowing anything of the matter from the sense of feeling. This remedy is probably less used in practice than its remarkable anodyne powers deserve.—*British Medical Journal.*

Congenital Inguinal Hernia.—(Operation for the radical cure of congenital inguinal hernia in the child. By George Buchanan, M.A., M.D., Professor of Clinical Surgery in the University of Glasgow.)—Professor John Wood's operation for the radical cure of inguinal hernia in the adult is, on the whole, so successful and so free from danger, that I am surprised so few of the many hundreds affected with hernia in every community seek the relief it affords. I presume it is because there must always be some hesitation in accepting the present risk, however small, which accompanies an operation; and a hope that the much greater danger of strangulation may never occur. But in the case of young boys the risk arising from an operation is much less. I think it has been shown that the peritoneal cavity, especially under antiseptic precautions, may be opened with impunity. But even this risk is, in Mr. Wood's plan, not encountered; but it seems to me strange that boys who have a congenital hernia which cannot be kept permanently reduced by any aparatus—a state of matters which every hospital surgeon sees repeatedly—should be allowed to grow up with a deformity which prevents them from being useful and happy members of society, and debars them from a great many employments.

I confess, however, that I have been disappointed with the results of my attempts to cure congenital hernia in children by Mr. Wood's operation with pins used subcutaneously. Either I did not succeed in pushing them through the anatomical structures I intended, which is so easy to do in the adult with the strong curved needle, or I failed to lock them, and twist them as it is necessary to do; but, from whatever cause, in the two cases on which I operated the result was unsatisfactory. The hernia came down as soon as the pins were taken out.

I determined, therefore, to perform an operation consisting of opening the sac and obliterating the canal by the introduction of strong sutures. The steps followed will be best understood by the report of a case which formed the subject of a clinical lecture.

Robert Inglis, aged sixteen months, was the subject of congenital inguinal hernia, which was observed shortly after his birth. It was small when first noticed, but soon increased in size; and it had grown with his growth. It was on January 9th, 1879, about the size of a turkey's egg, and distended the left side of the scrotum. It could be reduced with ease; but it was easily slipped down, and no aparatus or bandage could retain it in its place. Trusses had been tried at various times; but no sooner did the child move than the hernia came down. On returning it into abdomen, the fingers was rapidly pushed through the inguinal opening; but even then, unless pushed far up, the bowel slipped down alongside of it.

Before performing any operation, I accustomed the little patient to the pressure of a bandage. I returned the bowel, and applied a large thick pad, which was bandaged very firmly with figure-of-eight-bandage round the groin. This retained the hernia in its place for some hours; but the movements of the child and repeated fits of crying brought it down usually within twenty-four hours.

On January 25th, 1879, I performed a radical operation as follows: The patient having been put under the influence of chloroform, the rupture was returned and kept up by the finger of an assistant. A longitudinal incision was made along the

whole length of the sac, from opposite the internal ring to the bottom of the scrotom, this divided all the textures down the peritoneal sac, which, as usual, had been thickened by the presence and movements of the hernia. With the handle of the knife and a few touches of its point, I separated the sac from its superficial structure, leaving the posterior part lying over the cord, which was seen behind. I now divided the sac into two halves by a transeverse cut, except at the back, where it was adhering to the cord. One half was folded down over the testicle, so as to form a sort of *tunica vaginalis*. The upper half was rolled into a sort of ball or plug which I pushed into the internal abdominal ring and had it kept there by the assistant. I now approximated the walls of the inguinal canal much in the same way as in the wire operation for the radical cure of hernia in the adult. The superficial structures having been previously pushed aside and slightly dissected from off the abdominal aponeurosis, the relations of the rings and the canal could be felt and in great part seen. I took a strong nævus-needle and pushed it through the external pillar of the canal at a spot opposite the internal ring; then guiding it with the point of my left forefinger lying in the internal ring, I made it lift up the lower border of the internal oblique muscle, and emerge through the internal pillar of the external aponeurosis about half an inch above its lover edge. A strong waxed silk thread was now passed through the hole at the point of the needle, which was then withdrawn, pulling the thread with it. The thread was then tightly tied, including the structures through which the needle had been passed, and so fixing into the internal ring the rolled-up bit of the sac, care being taken that the external raw surface of the sac should be turned outwards toward the integument which was to cover it. A little below the first stitch, a second was introduced in the same direction, care being taken to avoid the structures of the cord, which lay at the bottom of the wound. The edges of the external ring were now drawn together tightly above the cord by a strong silver wire; this was made to take a very strong hold, by passing the needle first through the external pillar across the ring, and through the internal pillar. In

making the internal puncture, I passed the point of the needle so far towards the linea alba as to make it pierce from below the tendon of insertion of the rectus muscle, so as to give a firm hold. When the wire was drawn through with the needle, it was clamped, so as to squeeze together the boundaries of the external ring; and it was retained in that position by a little rod of silver with a hole at its point, through which the two ends of the wire were passed; and having been drawn tight, they were fixed by a turn round the rod. The silk threads were clipped short; and the wires with the little clamping rod, to which they were fixed, were allowed to hang out at the bottom of the wound. The edges of the incision were now united with thin silver-wire sutures, and the wound dressed with antiseptic precautions. The child was placed on a St. Andrew's cross, the upper arms of which were joined by a sheet of calico on which the body rested; the legs being securely bandaged with strips of adhesive plaster to the lower limbs of the cross. The pelvis and chest were also securely fixed to the apparatus. In this way, the movements of the child were effectually controlled.

Two days after the operation the scrotum was swollen, as if a portion of hernia had escaped from beneath the bandages; but this proved to be only a soft fluctuant swelling, probably an effusion of serum into the artificial tunica vaginalis, which had been formed by the folding down over the testicle of the lower half of the hernial sac, as described in the operation. In two days, this swelling had disappeared, and the scrotum was in its natural state. On the fourth day after the operation, the wound was dressed. It was found almost united, except in the place where the wires were left hanging out. On the tenth day, the little clamp and wire were removed, and the parts were found quite matted together.

It is unnecessary to detail the further progress. The dressings were changed every two days, and at the end of four weeks cicatrisation was practically complete. The child was then freed from restraint; but, for precaution, a bandage was still applied round the groin.

May 1st. At this date, the radical cure of the hernia is

perfect. No amount of exertion either of the limbs or on crying has the slightest effect on the inguinal region of the abdominal walls.

The result has exceeded my expectations, and I shall not hesitate to practice the operation in all similar cases, and even to adopt it as a means of accomplishing a radical cure in cases of strangulated hernia in which an operation for the relief of strangulation has become necessary.—*British Medical Journal.*

Œdema of the feet occurring in Typhoid Fever—(in connection with Abscesses in thigh and lumbar region).—By Dr. CUFFER, "Interne des Hopitaux," (condensed from *la France Medicale*).—Abscesses in the thighs, lumbar and sacral regions are frequently met with as sequels of typhoid fever. They are due, no doubt, to prolonged and enforced dorsal decubitus. They are either superficial or deep, and contain pure pus or a mixture of pus and blood, the latter the result of the breaking down of small sanguineous tumours. As a rule they are about the size of a small nut, but occasionally large collections of pus are met with which have taken their origin from the coalescence of smaller ones. These little collections are sometimes very difficult to detect, the ordinary symptoms of suppuration being marked by those of the disease. The sign the writer draws particular attention to is œdema of the feet, which always accompanies this pus formation, and is a certain guide to its detection. It is entirely a distinct thing from phlegmacia dolens. He cites from cases in which slight œdema of the feet led to the abscesses in the thighs and lumbar regions.

Medical Tariff in Germany.—According to the Augsburg *Gazette*, the minster of public instruction in Prussia, has submitted to the Society of Medicine at Berlin, a scheme for fixing the remuneration of medical men. This is the Tariff:

1. For the first visit to a patient 2 marks, (one German mark is equivalent to 1 franc, 25 centimes.)
2. For every subsequent visit, 1 mark.

If there should happen to be more than one patient under the same roof, the fee for each subsequent patient shall be 1 mark.

3. For consultation with one or several practitioners. For the first consultation, 5 marks, for each subsequent consultation, 3 marks.

4. For office consultations: First consultation 1½ mark.

5. Subsequent consultations ¾ of a mark.

6. Attendance from 10 P.M.. to 7 A.M,, three times the fee fixed in (1) and (2), and double the fee in (3) and (5).

7. For an examination with the ophthalmoscope, larynogoscope or other diagnostic instrument, 2 marks.

8. For admininistration of Chloroform, for diagnostic purposes, 3 marks.—*Le Progres Medicale*, 29th March, 1879.

Belladonna in the Treatment of Intestinal obstruction.—Dr. NORMAN KER reports five cases of intestinal obstruction which have been cured by the administration of large doses of belladonna. The treatment consisted in giving one or two grains of belladonna every hour, together with opiate fomentation to the belly and warm applical tions. Nearly all the patients were in a dangerous condition, but were entirely cured, the remedy taking effect in six to nine hours. One patient took 16 grains of the extract. The author gives no precise account of the cause of the obstruction.—*The Practitioner.*

Rare Anomaly—Single Kidney.—A rare anatomical curiosity was found at the autopsy of a patient who died of typhoid fever, in the practice of Dr. Crocq, of at St. John's Hospital, Brussels. There was no right kidney. The left kidney was generally hypertrophied, weighing 420 grammes. It occupied its usual place in the abdomen. A mass of connective tissue the size of a small nut represented the right kidney. The renal vessels on the left side were large, those of the right merely rudimentary.—Condensed from the *Presse Medic.*, belge of 24th March, 1879.

CANADA

Medical and Surgical Journal.

MONTREAL, MAY, 1879.

COLLEGE OF PHYSICIANS AND SURGEONS OF ONTARIO.

The annual meeting of the Council of the College of Physicians and Surgeons of the Province of Ontario was held on the 13th May and subsequent days, and some very remarkable business was transacted. It is reported that "Dr. William Clarke spoke at great length as to the visit of the deputation to Ottawa for the purpose of soliciting the repeal of the British Regulation Act, which repeal was earnestly desired by the Medical Profession of Canada." Avast there, as Jack would say, Dr. William Clarke does not represent the Medical Profession of Canada, however much he may the territorial division of Saugeen and Brock. What the "British Regulation Act" provides, we are unable to state, as we were not aware of the existence of such an act, however, we are led to infer the terms of its provisions, by the concluding portion of Dr. William Clarke's address. He stated that "Sir John A. Macdonald had received the deputatation, and promised to get the act repealed so far as it concerned Canadian students. His Excellency the Governor-General also received the deputation, and, sympathising with the profession, promised to make the necessary representations to the Imperial Government to have the Act repealed." So that we are thus far provided with the fact that it is an Imperial Act, and that it in some way affects the Canadian student. But Dr. William Clarke goes a step farther and complains of the grievance to the effect, that, unless repealed Canadian students can actually go to Britain, pass the

examinations and return and compel registration. This, then, is the gist of the whole matter: a Local Corporation composed of probably a fifth of the entire Medical Community of this Dominion, acting under a charter granted by the Local Provincial Parliament of the Province of Ontario, has the effrontery to send a deputation to the Government at Ottawa, which deputation assumes to represent the Medical Profession of Canada. We have no doubt that Sir John A. Macdonald took in the position at a glance, and to get rid of the importunity promised to look into the subject. We can only remark that if the Right Honourable gentleman does so, he will, we have no doubt, come to the conclusion that the British Regulation Act had better be left as it is, inasmuch as it does not in any way affect the interests of the Profession of this Dominion however much it may the self-imposed importance of the College of Physicians and Surgeons of the Province of Ontario.

But we are told, moreover, that if such a thing were permitted, that is, that the Canadian student should exercise his right of citizenship and go to Britain for his education, that the Medical profession of this Dominion would be endangered thereby. This is a most remarkable statement, and we were amased to see it reported as coming from a man in perfect possession of his faculties. When we read this report in the *Globe* we came to the conclusion that the reporter was poking fun at Dr. William Clarke, but we notice that a literal copy appears in the columns of the *Canadian Journal of Medical Science*, so that we are forced to the conclusion that these were actually the utterances of Dr. William Clarke, late President of the College of Physicians and Surgeons of the Province of Ontario.

Well, all we can say is that these views are crude, and we hope that the good sound common sense of the profession in Ontario will not be influenced by any such undigested material.

The College of Physicians and Surgeons of Ontario is simply legislating to favour the educational institutions of Ontario. This would be well enough, if it did not lead to a lowering of the standard of education in that Province; and as we are all interested in that question, we in this other province of

the Dominion have a right to speak. The Ontario men can afford to learn a practical lesson from the Japanese. That nation lived alone and avoided the contaminating influence of all outside barbarians, until they met with our neighbors south of 45°, when they learned that it was to their advantage to receive foreigners. Our Ontario brethren will in time discover that the true means of serving their own educational institutions, is by affording to their students as many advantages as they can get abroad, in fact, competing honourably and keenly with all outsiders, and cease to try and build up a false reputation by legislative restrictions. There is nothing to be apprehended in our students going to Britain for an examination, and any man who returns to this country with a British qualification ought to be admitted to registration at once, that is on what his papers show forth.

The profession in Great Britain is asking for a change of the Medical Act of 1858 under which it is governed, and we have no doubt, that of the many bills of amendment at present before the Imperial House of Commons, bearing on matters medical, a useful and satisfactory measure will come forth. But, whatever is obtained from the Legislature, we do not think it likely that one of the prominent features of the present act, that of securing recognition of all Registered Practitioners in any portion of Her Majesty's Dominions will be surrendered,—nor indeed is it necessary that it should be. The anomaly of obliging men who have attended a lengthy curriculum of study and who have passed before any of the examining bodies in Great Britain, to again submit to examination in any of the Colonies is to our mind very objectionable. We will not refer to the *personelle* of our Provincial Boards, they are elective bodies, and unfortunately the examiners are occasionally men who never attended a course of lectures; some who never passed any examination. We desire to see united action of the whole profession in this Dominion with a single door of entrance to the profession. By securing such a measure we believe the best interests of the profession would be served, and then we might reasonably expect recognition from the institutions of Great Britain. All

university degrees ought to be honorary, conferring on the holders the right of using certain distinctions such as Doctors in Medicine or Masters in Surgery. But the possession of such a distinction need not confer the right to practice. All candidates ought to be compelled to pass before a common Board of Examiners to be composed of the leading men of the Profession and not, as is the case at present, of men taken from the rank and file, who, as a rule, are not qualified for the position they fill. If such had been the case in Ontario we would not have had at the last meeting of the College the lamentable spectacle of a Committee being struck to enquire into the truthfulness of the allegations of certain delinquencies on the part of the Board of Examiners which in the Scotch acceptation of the term remained unproven.

A PRIVATE HOSPITAL.

The following circular was received from Mr. Samuel Strong, late Steward of the Montreal General Hospital, who has established in the city a private hospital for the better class of pay patients. Many persons have an objection to enter the wards of a public hospital; this objection is now removed in the opening of this house.

This institution is a comfortable home situated in a pleasant locality, in the vicinity of the Windsor Hotel, and on the main avenue to the mountain park. The house is large, roomy and provided with every essential for an institution of this character. Mr. Strong is a middle-aged, but active and energetic man, and has had a large experience in the management of hospitals both in England and in this country. The nursing department is under the immediate supervision of Mrs. Strong, who formerly belonged to Miss Nightingale's establishment, and who is a thoroughly competent and reliable nurse. It is not the intention of the proprietors to admit infectious diseases, as they wish to retain it exclusively for surgical cases. We may observe that since the opening of the house, we have had under our charge several paients who came to us from the country for surgical

relief, and they received every care and attention, and to us the order and regularity of the house was the same as is met with in other well conducted establishments. In making this announcement to our friends both in the city and country districts we trust they will lend a helping hand to render this home one of the aknowledged institutions of this city.

213 PEEL STREET,
MONTREAL, 26th May, 1879.

DEAR SIR,—I beg to inform you I have taken the house as above for the reception of paying patients, to be attended by their own medical advisers, and I ask your support.

The nursing will be personally superintended by a well-known, trained hospital nurse.

The terms will be $2.00 and $1.50 per day according to accommodation, exclusive of medicines, wines and spirits, etc.

I remain, Dear Sir,
Yours, faithfully,
SAMUEL STRONG.

PICTURES FROM THE PARISIAN HOSPITAL.—Professor (who has his class in the wards) to patient, "what is your occupation? Patient (who has pulmonary disease), "Musician, sir." Professor, to class: "There, gentlemen, at last I have the opportunity of demonstrating what I have often told you in the Lecture room, that the wear and tear on the respiratory tract caused by the blowing of musical instruments, is a fertile source of just such difficulty as our patient here labors under. To patient, what instrument do you play, sir?" Patient: "The bass drum!"

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CANADA

MEDICAL & SURGICAL JOURNAL

JUNE, 1879.

Original Communications.

THREE CASES OF MALIGNANT DISEASE.

BY RICHARD MACDONNELL, B.A., M.D., M.R.C.S., Eng.

Assistant Demonstrator of Anatomy, McGill University, Montreal.

(Read before the Medico-Chirurgical Society of Montreal.)

I propose to read to you this evening the histories of three cases of scirrhus cancer, and I hope by them to illustrate three points in the clinical history of malignant disease.

1. The insidious progress of cancer of the upper part of the rectum and sigmoid flexure.

2. The irregular course of symptoms of cancer of the stomach.

3. The rare co-existence of pregnancy and malignant disease of the breast.

Case I.—Mary B., exact age unknown, apparently about 70 years of age: for many years a widow; of fair complexion, thin but not emaciated. Has been an inmate of the Church Home for many years.

I was sent for on the 28th June, 1878, to visit her. A slight cough, to which she had been subject for many years, was rather worse than usual, and for the first time she noticed the sputa tinged with blood. She had a fairly strong pulse and did not feel ill at all. The hæmoptysis was very trifling. I prescribed rest, cold food, and a mustard poultice to the chest. She was to take a pill of acetate of lead and opium every four hours until I saw her again.

The next day there was no return of the hæmorrhage. There was increase resonance on percussion. Large moist râles over chest generally. Heart sounds normal.

On the third day of the illness there was a slight return of the hæmorrhage. Altogether she had taken three lead and opium pills, for I gave her ergot.

She complained to me that day that her bowels were confined, and I ordered a enema of soap and water.

On the following day she was thought to be quite well, and she resumed her ordinary occupation.

Two days after she was apparently in the best of health, and was doing her daily work in the institution.

Five days after her recovery I received a message to hurry to see Mrs. B. I was out at the time the messenger arrived, and did not get to the Church Home for two hours afterwards. Mrs. B. was just dying; insensible; extremities cold. She died within a few minutes of my arrival.

I was told that that morning she had been uneasy in her bowels, and complained of distension with gradually increasing pain, and that her abdomen had become distended. Turpentine stripes had given momentary relief.

Post-mortem appearances. — Abdomen much distended with gas. The colon was very large, as large as a quart bottle, and dark in colour from congestion. Beginning at the sigmoid flexure and involving the upper part of the rectum was an indurated stricture which almost occluded it. The gut itself was much thickened, and was constricted on the outside.

The colon above contained a large quantity of semi-fluid fæces. There were no other lesions except those found in the old cases of bronchitis with emphysema.

The site of the disease affords a definite reason for the absence of pain. Those who have read Mr. Hilton's admirable lectures on "Rest and Pain," will perhaps remember his remarks on this very point.

"Little sensibility and easy dilatibility are the physiological characteristics of the rectum, except at the lowest part, where

great sensibility, difficult dilatation, and enduring power of contraction are the normal physiological features."

As practitioners you have no doubt noticed the extreme degree to which this part of the bowel can be distended without even causing inconvenience to the patient, and Mr. Hilton mentions the almost painless operation of tapping the bladder through the rectum, and of applying nitric acid to prolapsed gut. It is still very remarkable that this woman should have been the subject of such serious disease without the existence of premonitory symptoms.

CASE II.—Maria B., æt. about 70. For many years a widow. No family constitutional disease. One sister died of hypertrophy of heart. Two sisters living.

Always enjoyed excellent health. On February 18th, 1878, she first came under my care. She was suffering then from constipation for which the usual remedies were prescribed.

On the 18th of April she complained of pain and distension of the abdomen, constipation and loss of appetite.

On that day I thoroughly examined the chest and abdomen, and beyond noticing that the latter was slightly tympanitic, I could find nothing to account for the symptoms. She was greatly relieved by a pidophyllin pill, and by the application of stupes of turpentine to the abdomen.

In the first week of May this pain in the left hypochondrium was very troublesome. It was more a sense of distension, I think, than actual pain. The patient could not localize it; it was not increased by pressure, nor was it influenced by posture. It was not constant, and it had a tendency to become worse at certain hours of the day. It was certainly unconnected with the taking of food, or with its quantity or quality.

There were then only two symptoms, tympanites and pain.

The general health was tolerably good. At this time I repeatedly examined the chest and abdomen. The urine neither contained sugar nor albumen. Bowels generally confined. I thought then that the symptoms were due to flatulent distension of the colon,

On the 12th of May I had the benefit of a consultation with Dr. Craik. At his suggestion salicylic acid in small doses was used, with a view to assist fermentation. A great improvement in the symptoms followed, but it was merely temporary.

One day in the latter end of May she caught cold, and during the week ending 1st June, 1878, she suffered from lung symptoms, which were thought by Dr. Craik and myself to arise from a slight pneumonia.

After this attack the old symptoms returned, and then I began to suspect malignant disease. In the middle of June Dr. Howard did me the honour of examining the case with me. We examined the chest, abdomen, rectum, vagina, and urine, but still no light was thrown on the diagnosis.

The pain and typanites continued as obstinate as ever until the 14th of September, when she went under homœopathic treatment. On the 14th of October I resumed charge of the case again. Much emaciated. Pulse very weak. For the next month she improved rapidly and was soon able to spend her day in a chair. The treatment consisted of anodynes, food and stimulants. The abdomen being now very flaccid, it afforded us (for I had benefit of frequent consultations with Dr. Howard) abundant opportunities for careful examination.

We became day by day more convinced that we had malignant disease of the colon, or of part of the intestine to deal with. For my own part, I did not even suspect the stomach until I had seen, through Dr. Howard's kindness, the autopsy of a patient of his, whose symptoms were all referred to in the intestines, and in whom, after death, the seat of the disease was found to be entirely confined to the stomach, the fatal event being caused by perforation of the pericardium.

The consideration of this case prevented me excluding from my list of possibilities, the existence of extensive organic disease of the stomach.

From the 14th of October to the 26th of November, she was entirely free from pain, but suffered from weakness and constipation. In fact the bowels now never acted spontaneously.

On the 28th of November she had a sharp attack of diarrhœa,

brought on by an overdose of mineral water. It was noticed that the stools were black. They continued so until the 2nd of December. Dr. Howard was of the opinion that the dark colour was due to blood. The pulse was frequent, and she became very anæmic. The pain in the left hypochondrium not so severe as it used to be, but more periodic, generally occurring at 4 P.M. Appetite very capricious. Occasionally slight vomiting, but merely the contents of the stomach were ejected. Never vomited blood. Diarrhœa and tenesmus were present in the month of December. The pulse gradually weakened as the disease advanced, being always regular. Tongue is now dry, brown and fissured.

On the 26th of December, Dr. Howard detected in the left hypochondrium a small movable tumour which was smooth and rolled under the fingers. Throughout the whole course of the disease this tumour afforded us ground for conjecture, but from the fact that at times it could not be found, we hesitated at giving a decided opinion.

At this time pain was very severe, but in the course of a month or so it wore away. She complained greatly of an uneasy sinking sensation in the left hypochondriac region. In March, 1879, hiccough appeared, and refused to yield to treatment.

In the beginning of April œdema, firstly of the feet, and subsequently of the hands, set in. The asthemia became more and more marked, and she died worn out.

Post-mortem Appearances.—Extreme emaciation, œdema of the ankles and hands. Abdomen shrunken and flattened; no tumour could be felt.

On opening the abdomen the lesser curve of the stomach appeared to be puckered and red. An ulcer as large as, and the shape of, the human ear, was found encircling the lesser curve, about ½ an inch from the pylorus. The edges of the ulcer were raised, thickened, and much indurated. The centre of it was very thin, so thin that on slight manipulation a rent was made in it.

Dr. Howard, who was present at the autopsy, thought that it was a large gastric ulcer which had taken on malignant action. We found no other lesion in the body except senile changes.

The ulcer was examined microscopically by Dr. Ritchie, who has kindly provided us with the slides we have this evening.

The treatment consisted in, at first, the use of remedies said to be of service in dyspepsia and constipation, afterwards opiates internally, as well as many anodyne applications. Of the latter, the best one, was a mixture of 7 parts of Lin Bellad., and 1 part of Chloroform, sprinkled on spongiopiline. The last ten weeks of her illness, she was fed almost entirely by the rectum.

A few remarks on the diagnosis of this case. As you perceive, the early symptoms were misleading. From their persistence and from the progressive cachexia, one was forced into the conviction that there was malignant disease in some part of the alimentary canal. But in what part? Examining the symptoms one by one we shall find that scarcely any of them point to the stomach.

1. Pain was not of its usual character, nor did it occupy its usual site. Only at times severe, it was absent during the latter part of the patient's illness.

Habershon regards pain in such cases as being due to exposure of the vagus to the irritating contents of the stomach. The pain ceases when the branches are divided by the progress of the disease.

2. Vomiting, though occasionally present, was never urgent.
3. Hæmatemesis was entirely absent.
4. No tumour could be felt.

The probabilities of the disease being in the colon were very great.

1. The colon is a favorite site.
2. Typanites was an urgent symptom, inclining one to think that there was some obstruction in the course of the gut.
3. Pain was complained of in the left hypochondrium, and in the left lumbar region.
4. There was obstinate constipation. The bowels were emptied about every 4th or 5th day, by an enema of soap and water. This day was looked forward to with dread. Great relief followed the removal of an accumulation of fæces.

5. Tenesmus accompanied the diarrhœa and the passage of bloody stools, and was at times present throughout the course of the disease. She often strained for hours without effect.

6. A small tumour in the left hypochondrium could at times be felt. This afterwards was proved to be fæcal, yet at the time it was very deceptive.

7. The presence of blood in the evacuations.

Case III.—M. B., æt. 36, came to the Montreal Dispensary on the 18th of March, 1879. Her father had died from an unknown cause. Her mother and several brothers and sisters were alive, and in good health. Married eleven years. Four healthy children. No miscarriages. Labours always uncomplicated.

From early girlhood has had a small tumour on right side of chest. This commenced as a little wart, increased to the size of a walnut, and gradually acquired a pedicle. It was never painful, but it used to catch in her dress and she found this very inconvenient.

In the beginning of last autumn, her left breast began to get hard. There was not much pain in it at first. So she postponed from day to day seeking advice about it. She is five months pregnant. Cannot say which began first, the pregnancy or the hard breast.

Present Condition.—A pendulous lipoma grows from a thin pedicle on the right side of the chest, under the axilla at the level of the eighth rib. Complains of pain in the left breast, which is uniformly enlarged. The skin is tightly drawn over it and has a glazed appearance. The nipple is not retracted. There is no puckering of the mammæ. The whole breast is extremely hard throughout. On the surface the skin a firmly adherent to subjacent tissue. There is no adhesion to the ribs. The margins of the breast are hard, and cease abruptly in healthy tissue. Two small glands in the axilla are enlarged and hard.

I cut off the lipoma, and sent her up to Dr. Roddick, to show to his class, and also in order that I might have the benefit of his advice.

On the 10th April she was complaining of pain and debility. About four weeks after that I went to see her but found that she had moved. I found a sister of hers, and from her I obtained the following history. The debility had greatly increased. The axillary glands in the left side had become enlarged. The other breast had become similarly affected. At the seventh month of pregnancy labour set in. Both mother and child died about twelve hours afterwards.

Cancer of the breast occurring in pregnancy, is I think, a rarity, though I cannot understand why such should be the case. Very little mention of pregnancy is made in the many work srelating to disease of the breast. Mr. Heath* in one of his clinical lectures states that two conditions are not incompatible, and mentions the case of such a patient who went the full time and gave birth to a healthy child. Mr. John Wood† records a case where scirrhus occurring after pregnancy became complicated with milk abscess.

Mr. Nuun in his synopsis of 50 cases of cancer of the breast, mentions a patient who in September noticed her tumour, had it removed in January, and in the following April was delivered of a healthy child. The next June the right breast was attacked.‡

* *Lancet*, Vol. 1, 71. p. 849.
† *Pathological Transactions*, Vol. xix.
‡ In the discussion which followed the reading of this paper, Dr. R. P. Howard and Dr. Hingston both mentioned cases where the two conditions co-existed.

Hospital Reports.

MEDICAL AND SURGICAL CASES OCCURRING IN THE PRACTICE OF THE MONTREAL GENERAL HOSPITAL.

Strangulated, oblique Inguinal Hernia.—Congenital.—Operation.—Death.—Under the care of G. E. FENWICK, M.D.

Reported by A. W. Imrie, M.D., Assistant House Surgeon.

R. M., a strongly-built machinist, aged 38 years, was admitted to the Hospital on Friday afternoon, June 6th, with the following symptoms and history:

Symptoms.—Excruciating pain, radiating from an elongated tense tumour in the right inguinal region—throughout the ab-

domen and down the thigh. Occasional vomiting, unattended by nausea, and obstinate constipation. Patient felt weak; extremites cold; countenance haggard and inanimate. Pulse regular and full, at 85 to the minute. Temperature 99°.

History.—On the Wednesday evening previous, while working with an axe, he felt his rupture (present since childhood) suddenly grow unusually large and painful, and experiencing a sensation of faintness, he took to his bed, and so soon as he felt somewhat recovered from the shock, endeavoured by manipulation to return the intestine to the abdomen. Failing on this he soon had violent pain in his abdomen and thighs, and began to vomit, and these symptoms (vomiting and pain) he states persisted. On Thursday he sent for surgical aid, and the same evening an attempt was made to reduce the hernia under chloroform. A small portion of bowel appeared to slip back into the abdomen, and the tumour grew softer. Patient was advised to have himself removed to the Hospital where an operation would be done to relieve him. This he obstinately refused to do until this afternoon.

Diary and Treatment.—On admission the hernia was found to extend from anterior superior spinous process of the right ilium to the scrotum, to be uniformly smooth and tense. But one testicle could be felt, and that high up on the right side. The scrotum did not seem to be occupied by the bowel. Ice cloths were ordered to be kept constantly applied. Ice and milk in small quantities to be fed to the patient, and grain doses of opium administered every hour. On Saturday pain had subsided. Tumour felt softer; vomiting continued, and patient was somewhat exhausted. Hypodermic injections of morphia were substituted for the opium. On Sunday, the pulse (previously full and regular at 85 or 90 to the minute) had quickened and became somewhat easily compressible and irregular. Temperature 100°; pain slight. Tumour soft. Vomiting and constipation persistent. Extremities blue and cold. Patient, after much persuasion, consented to submitt to the operation.

At four P.M., Dr. Fenwick proceeded to the operation. After ether had been administered, he made a free incision cutting

through the structures, layer by layer, until he reached the sac. This was freely opened ; it contained a large quantity of serum, and nearly two feet of small intestine. The stricture at the internal ring, was very tight and unyielding, and had to be freely incised. A portion of the intestine was drawn through the stricture and examined, when it was deemed sufficiently healthy to return into the peritoneal cavity. This was done without difficulty, a drainage tube was placed in the wound which was closed with cat-gut sutures and the patient returned to his bed. The operation was performed with antiseptic precautions, but the patient never rallied, sinking gradually until seven o'clock, when he died.

AUTOPSY BY DR. OSLER.

Body, that of a powerfully-built man ; no hair on the face ; only a few bristles on chin.

On opening the abdomen, omentum is injected and is attached in right inguinal canal. Lower coils of intestine injected, and toward the ileo-cacal valve dark-coloured, and at one point there is a definite constriction, immediately above which is seen a tiny orifice through which the contents of the bowel are escaping. On removal and careful inspection of this part of the bowel, it is seen that the nipping has taken place just three feet from the valve ; at the point of constriction the tissues are soft and necrotic in a band extending round the gut and about three lines in width. For eight inches below this the bowel is dark-coloured, peritoneum opaque, and intestinal wall sodden, but scarcely looks gangrenous ; the next twelve inches are not so dark. The perforation is just above the constriction and is not much larger than the head of a pin. The intestine beyond it is tolerably natural, walls relaxed, and here and there are a few ecchymoses. A few ounces of dirty semi-feculent fluid in pelvic cavity. Very little lymph. Right inguinal canal is large, readily admitting two fingers, and leads to a large scrotal sac.

On examination it was seen that the patient has been the subject of undescended testes, the right organ lay just at the

internal ring, the left high up on the postero-lateral wall of the pelvis. Both organs are very small, not larger than good-sized almonds. They were removed with the vasa-defferentia and bladder. On dissection the epidydimis is small and separated by a considerable interval from the body of the testis, the vasa efferentia being very distinct. On section the substance of the organs is yellowish in colour, and teased preparation show that there is entire absence of secreting structure, the seminal tubules are distinct and can be uncoiled, but they are filled with granular *debris* and fatty matter; no trace of either seminal vesicles or epithelium. The vasa defferentia are small but patent; the vesiculæ seminales are of normal size; some of the tubes contain fluid resembling semen, but on examination no spermatozoa are seen, only epithelial cells. In the larger coils there is a firm, inspissated matter like wax. Prostate is normal. The left inguinal canal admits the finger, and leads to a pouch of peritoneum which passes to the upper part of the scrotum, the middle finger passing down as far as the second joint from the internal ring. Nothing abnormal about the other organs.

Remarks by Dr. Fenwick:—There are some points of interest in this case which demand attention. Although neither testis had descended yet was the scrotum well-formed and normal in appearance. The absence of a scrotum in similar cases has been noticed and recorded by the late Mr. Poland. On both sides, in this case, the internal ring existed, and a process of peritoneum passed down, on the right side it extended into the right scrotum, and was filled with the intestinal protrusion, on the left a pouch existed quite large enough to admit the passage of a loop of intestine, but none had descended. The operation for the relief of the strangulated gut was not urgently necessary, until the Sunday morning, the day on which the operation was performed. The man, however, positively objected to submit to operative measures until the evening of that day. After opening the sac and relieving the stricture the intestine was examined carefully; the portion which had been constricted was drawn out through the opening, but although it was dark and congested, it presented a glistening

appearance, and was believed to be sufficiently healthy to return into the peritoneal cavity. The result in this case affords another proof of the danger of delay in operating for the relief of strangulation, and had the operation been performed a few hours earlier there can be little doubt the chances of a successful issue would have been much greater.

MEDICAL CASES UNDER DR. OSLER.

III. *Aphasia, with right-sided Hemiplegia, coming on fifteen days after delivery.*

Reported by D. Mignault, B.A.

Philomene A., æt. 35, admitted April 15th with hemiplegia and aphasia. Patient has always been a healthy woman. Married at 23 years of age, and has had five children, the last born on 25th of August, 1878. Has never had a miscarriage. After the birth of her third child she had a mammary abscess, which continued to discharge for five years, and has only healed since last confinement. During her last pregnancy she suffered from headache, vertigo, and a feeling of numbness and weakness in the right side. The patient's sister, an exceedingly intelligent woman, from whom most of these facts have been obtained, is quite positive about these facts. On the 9th of September, fifteen days after delivery, she became suddenly paralysed in the right side, and unconscious. For six months she remained in this state, never speaking or appearing to recognize any of her friends, and during the entire period passed fæces and urine in bed. At the latter end of February she began to recognise her friends, and soon after made attempts to speak, and began to recover the use of the right leg.

Present condition.—Patient is well-nourished, with a somewhat vacuous expression of countenance, and laughs at the slightest provocation. No facial paralysis. She walks with a paralytic gait. Right arm is moderately wasted, and is kept in a semi-flexed position, it can be moved from shoulder, movements at elbow less free. Fingers strongly flexed, firm, secondary contracture. No impairment of sensibility. She still com-

plains of headache, and when asked to point out the spot invariably places the hand on the right temporal region.

The aphasia still persists, and presents the following characteristics: on being asked her name, patient cogitates profoundly, and appears vexed and distressed at not knowing it, and finally shrugs her shoulders in despair. When told, she at once recognizes it, and repeats it quite well, and can do so for two or three times, and then forgets it. When asked her husband's name, she could not remember it, but when a long string of names were gone over and the right one mentioned, she at once recognized it and repeated it joyfully. It was the same with simple objects, she cannot tell her age, and repeats and appears to consent to almost any number suggested, but when the right figure is named she at once shows by her expression that she recognizes it as correct, and repeats it with great emphasis. During her short stay in Hospital she improved somewhat, and Mr. Mignault got her to retain the names of some familiar objects from day to day.

Heart, lungs and kidneys appear healthy, appetite is good, bowels regular. After remaining about ten days in hospital her husband removed her.

IV. *Acute Rheumatism treated with Salicylate of Soda. Delirium apparently caused by the remedy.*

Reported by B. E. Mackenzie, B.A.

Margaret H., æt. 35, admitted April, 16th, with acute rheumatism. Two years ago, had a mild attack of the same. On the evening of the 12th she was seized with pain in the right knee and became feverish; had been scrubbing during the day and was exposed to a draught. The following day the pain was very severe, and on the 14th and 15th the other knee and the shoulders became affected. On admission the wrists and ankles were also swollen, red and tender. Temperature 100·5°. Ordered salicylate of soda, 15 grs. every five hours. Systolic murmur at apex. Has a troublesome cough. During 17th and 18th, pain continued. Temperature in evening reached 101°

19*th.*—Knees better, and can be freely moved. Complains of a buzzing sound in the ears.

20*th.*—Temperature normal, joints much better. Noticed by the nurse that she talks incoherently, and requires watching.

21*st.*—Temperature 98°; joints better. Still rambles and talks all sorts of nonsense, is with difficulty kept in bed.

22*nd.*—Incoherence more marked. Does not appear to know where she is. Slept badly and gave great trouble in the ward. Systolic murmur distinct. Albumen in urine. Temperature, 98°. Pulse 108. Salicylate of soda stopped, and a mixture of pot. bromide and chloral ordered.

23*rd.*—Pain has disappeared from joints. Delirium not so marked. Slept well. Complaining of sore-throat, and on examination the uvula is seen enlarged and swollen, dark in colour, at the tip, and for a distance of nearly one quarter of an inch it is in a state of hæmorrhagic infiltration. The soft palate is somewhat injected.

24*th.*—Delirium has disappeared. Throat very sore; the tip of the uvula is greyish-white in colour, and greatly swollen at elongated. Palate and pillars of fauces also swollen. Temperature 99·5°.

25*th.*—The portion of uvula which was at first hæmorrhagic and subsequently of a greyish-white colour, appears to be separating, a distinct line can be seen between the healthy and diseased parts. Complains of pains in shoulders and knees; ordered the salicylate of soda again, 15 grains four times a day,

26*th.*—Slough has separated from uvula, leaving a rough red base.

30*th.*—Patient convalescent.

Proceedings of Societies.

MEDICO-CHIRURGICAL SOCIETY.

MONTREAL, MAY 16, 1879.

A regular meeting of the above society was held this evening, the President, Dr. Henry Howard, in the chair.

Dr. Osler exhibited a kidney which had undergone amyloid degeneration in a patient who also had syphilitic disease of the rectum. The patient had been in the Montreal General Hospital under the care of Dr. Reddy. The chief symptoms during life were albuminuria and profound anæmia, with slight œdema of the ankles. On post-mortem examination the kidneys were found enlarged and in a condition of advanced amyloid degeneration. The liver was in a similar condition, but neither the liver nor the spleen were enlarged. No deposits of pus were seen in any of these organs. The uterus, vagina, and bladder were healthy. The rectum, however, had the characteristic appearance of syphilis; namely, great thickening of its lower third, stenosed, and the mucus membrane for three inches above the anus was gone, and replaced by firm, fibroid tissue. Extending from the posterior wall were several sinuses passing into pockets of pus. The only other evidence of syphilis was a suspicious ulceration of the throat. Dr. Osler remarked that the majority of these cases occur in women.

Dr. A. Lapthorn Smith then read a paper on "Chorea," giving a detailed account of several cases and expressing his belief that this disease is due to a defective nutrition of the motor ganglia of the brain.

Dr. F. W. Campbell mentioned that he had three years ago a case of Chorea, so severe that he had to keep the child for a whole week under the influence of chloral. The treatment he adopted was iron before meals, and arsenic after.

Dr. Roddick said that he had attended a lady in February for pneumonia, and on visiting her to-day decided choreic movements of the left side were noticed. He ordered in this case 30 min. doses of dialysed iron three times a day.

Dr. Henry Howard looked on chorea as a functional and not an organic disease. His treatment was arsenic and nux-vomica.

A vote of thanks to Dr. Smith was moved by Dr. Roddick, seconded by Dr. Hingston, and carried.

Dr. Hingston exhibited to the society a pen-holder which he extracted from the urethra of a young man, it having unintentionally got lodged there. Urethral forceps were used. They are so constructed as to facilitate the removal of foreign bodies from the urethra.

Dr. F. W. Campbell saw a case some years ago in the General Hospital under the care of the late Dr. Jones, in which a pencil had been passed into the urethra. Lithotomy was performed in order to extract it. He also stated the facts of a second case, where through envy an individual was forcibly held while two shawl pins were inserted and pushed down his urethra. Finding it impossible to withdraw them, as their points became, in every effort, caught in the urethral walls, the points were pressed forward, cut down on and extracted through the wounds. He was assisted in this case by Dr. Drake.

Dr. Campbell also related a case of cancer of the bladder.

Dr. Hingston mentioned a case of atresia of the vagina, in which he had dilated and subsequently directed a medical man to continue the dilation. At his next visit, (the patient residing out of town), he found that the urethra had been dilated instead of the partially closed vagina.

MONTREAL, May 30, 1879.

A regular meeting was held this evening, the President Dr. Henry Howard, in the chair.

Dr. Osler exhibited two pathological specimens. The first was a monstrosity. It was a foundling brought into the Grey Nunnery, and lived for three days after admission. It is devoid of cerebellum and cerebrum. Projecting from the top of the head are some peculiar convolutions. The frontal and parietal bones are wanting; the occipital is wanting. The head is buried in the shoulders, and there is a peculiar idiotic appearance. Dr. Fenwick asked if the child fed and swallowed. Dr. Schmidt

replied that it swallowed very well, and was fed from a spoon. Dr. Smith asked if the child could move its limbs freely. Dr. Schmidt replied that it did not move its left arm. Dr. Osler further added: that an interesting fact in these cases is, that the cranial nerves are developed and perfect.

The second case was one of post-partum endo-metritis, death having taken place on the 9th day preceded by symptoms of septic poisoning. There is a coating like a diphtheritic membrane over about one-third of the uterus. The uterine veins are not filled with thrombi, the right ovarian, however, is large, firm, hard and filled with a thrombus. This was traced up to the inferior vena cava, and where it enters the cava it was of natural size, and through this opening the thrombus extended, and was attached to the wall of the cava. There was diphtheritic endo-metritis. According to some writers, there is a difference between this and true diphtheria. Herschfeld says that if this be inoculated in the throat of a rabbit it will not induce genuine diphtheria.

Dr. Rodger then read a paper on "Softening of the Brain." Some discussion followed, and a vote of thanks was moved by Dr. Kennedy, seconded by Dr. Ross, and carried.

Under the head of "Cases in Practice" Dr. Hingston mentioned that on Sunday last a child was brought to him suffering very great pain in the rectum. On passing his finger into the rectum, he found a needle, which was removed. The child had swallowed it.

Dr. Ross asked what was the experience of members of the Society in regard to Ague occurring within the city of Montreal. He said he knew of it occurring in the neighbourhood of the city, but had never seen a case originating within the city. He had lately a case from Hochelaga, and had seen two cases in the General Hospital, the disease having attacked the men while working in the Lachine Canal. Dr. Fenwick said he had seen cases originating within the city, especially on the line of Ontario street. Dr. Armstrong had seen one case, and Dr. Rodger two at the Point.

The meeting then adjourned.

O. C. EDWARDS,
Secretary.

Reviews and Notices of Books.

A Practical Treatise on Surgical Diagnosis. Designed as a Manual for Practitioners and Students.—By AMBROSE L. RANNEY, A.M., M.D., &c. 8vo. pp. 386. New York: WILLIAM WOOD & Company, 27, Great Jones Street.

This is a very excellent manual. The author in publishing it as a text-book for students trusts that it may be an aid to memory by presenting the symptoms of any given diseases in contrast with those of other diseases that they may resemble. Considerable care has been devoted to the preparation of this work. All questions of ætiology, pathology and treatment have been excluded, the author confining himself to the symptomatology of disease, showing the differences in this respect between different affections which often resemble one another, and which may be mistaken the one for the other. The table of contents sets forth a division of the subject into eight parts. In part I Disease of the blood-vessels are given. In the classification we have diseases of the arterial coats, as atheroma and fatty degeneration. Disease affecting the calibre of the vessels, as aneurism, occlusion of arteries from pressure, from emboli, from thrombi, and from foreign bodies. Diseases of veins, as hypertrophy of the coats, atrophy of venous coats, adhesive phlebitis, diffuse phlebitis, varicose tumours, obstruction from plugging, or outside pressure, and parasites of veins.

The author is forced to admit that many of these affections are obscure, and that in some a positive and decided opinion cannot be given, based on the rational aymptoms, or physical signs observed.

In speaking of aneurism, the author points out the difficulties of diagnosis, more especially in the thoracic and abdominal varieties. He enumerates some thirteen other affections with which aneurism may be confounded. The differential symptoms of each are given, side by side, so that the reader is enabled to grasp the subject more readily.

In part II. Diseases of joints are treated in the same manner.

These the author classifies under the headings, inflammatory diseases, anchyloses, dropsy of joints, articular neuralgia, loose cartilages, and congenital and acquired malformations. In part III. we have the subject of diseases of bones. Part IV. dislocations, and part V. fractures. Part VI. is devoted to diseases of the male genitals. Part VII. to diseases of the abdominal cavity, and Part VIII. to diseases of the tissues. In this last part will be found inflammatory conditions of the tissues, tumefactions, indurations, suppurations, gangrene, the formation of abscess, tumors, both benign and malignant, and the differential diagnosis, between various conditions of the uterus, uterine fibroids, and ovarian cysts. This is a very practical book and will be found of great use to the surgical teacher, more especially those engaged in bed-side instruction. The arrangement of the subjects is concise, and the differentiation so placed that the symptoms of each disease can be reviewed separately by reading from above downwards, and by reading across the page the points of contrast become at once apparent, while at the foot of each page will be found an enumeration of symptoms common to the disease under discussion, and that with which it might be confounded.

There are some defects which are of importance, as for instance, in the subspinous dislocation of the humerus, it is stated that it is frequent in all ages. This is manifestly an error, as this form of dislocation is very rare. Frank Hamilton testifies to the rarity of this accident. In the 5th edition of his valuable treatise on dislocations and fractures, he mentions one case only as having come under his observation; again, in reference to this dislocation, the author states the reduction is permanent when accomplished. This is certainly not always the case. Hamilton mentions the fact of one case in which the bone would not remain in place when reduced, and accounts for that result from disruption of the subscapularis muscle, an accident which is mentioned as occurring by Sir Astley Cooper. There are some other defects which in a careful revision of the work will, we doubt not, be amended in a future edition. Altogether the work is most creditable, and will be found of great use to both practitioner and student.

Modern Surgical Therapeutics.—A Compendium of Current Formulæ, approved Dressings and Specific Methods for Treatment of Surgical Diseases and Injuries.—By GEO. H. NAPHEYS, A.M., M.D. Sixth edition. Revised to the most recent date. 8vo. pp. 420. Philadelphia: D. G. BRINTON, 115 South Seventh Street.

This is an old friend with a new face, another edition of a very popular compilation of the various modes of treatment adopted by surgeons in all parts of the world. We are pleased to see that the author gives credit to Canada for some of the plans of treatment he enumerates.

Prof. Fuller's treatment of shock by opium (*Medical Record*, February, 1877) is mentioned.

Three pages and a half are devoted to synopsis of Dr. Rosebrugh's (Toronto) treatment of Conjunctivitis. The work is an exceedingly useful one, and quite up to the practice of the present day.

A Treatise on the Diseases of Infancy and Childhood.—By J. LEWIS SMITH, M.D., Clinical Professor of Diseases of Children in Bellevue Hospital, New York. Fourth edition, thoroughly revised, with illustrations. 8vo. pp. 740. Philadelphia: HENRY C. LEA, publisher, 1879.

The fact that the author has been called upon to produce a fourth edition of this work demonstrates conclusively that it supplies a want keenly felt by American practitioners. Either from his own neglect, in many more instances from the neglect of the authorities of his college, the student goes into practice knowing little or nothing about the diseases of children. On the day he graduates, though he may know all about tying the third part of the subclavian, diagnosing spinal sclerosis, or the best method of performing Cæsarian section, yet his examiners would puzzle him were they to ask how an enema ought to be given to a baby, or how to prescribe for a case of infantile diarrhœa.

Many a young practitioner, aware of his ignorance in this branch of medicine, commences his reading in that long dreary period before the patients come to him, by careful application to

some treatise on diseases of childhood. Dr. Smith's work would suit such readers most admirably.

In being written by one whose experience is American, it possesses a great advantage; for, as we all know, the climate of a country alters in a great measure the type of a disease, and many diseases of childhood are almost absent, or, at all events, not so prevalent in England as they are in America. The summer diarrhœa of children affords an example of one of these.

The earlier chapters are connected with the bringing up, the feeding, the clothing, etc. of children. Of the artificial feeding of infants, Dr. Smith's statistics are alarming.

"Thus, on the continent, in Lyons and Parthenay, where foundlings are wet-nursed, the deaths are 33.7 and 35 per cent. On the other hand, in Paris, Rheims, and Aix, where the foundlings are wholly dry-nursed, their deaths are 50.3, 63.9, and 80 per cent. In this city, (New York) the foundlings, amounting to several hundred a year, were formerly dry-nursed; and incredible as it may appear, their mortality with this mode of alimentation nearly reached 100 per cent."

The subject of systolic brain murmur in children, which Professor Osler brought before the Medico-Chirurgical Society of Montreal some time ago, is referred to by the author in connection with rickets. "Later observations have established the fact, that this murmur possesses little diagnostic value. It is heard in healthy as well as diseased infants. Dr. Wirthgen detected it 22 times in 52 children, all of whom, except four, were in good health. I have auscultated the anterior fontanelle in 29 infants who were, with two exceptions, between the ages of three and thirty months. Most of them were well, or with trivial ailments, which would not affect the cerebral circulation. In most infants with a patent fontanelle, a murmur can be distinctly heard, synchronous with the respiratory act, and in 15 out of the 39 cases, no other bruit could be detected, while in the remainder, namely 14, a bruit synchronous with the pulse was heard at the fontanelle."

Dr. Smith ignores the ingenious theory of Jurasz, that these brain murmurs are due to want of correspondence in size between

the internal carotid artery and the bony canal through which it passes in the base of the skull. The researches of his own countrymen, Drs. Fisher and Whitney, deserve recognition.

In the treatment of whooping-cough the remedies found most useful and which are most employed in the New York institutions, are belladonna, quinine, the bromides, and the hydrate of chloral.

"The use of quinine as a remedy for pertussis, was first strongly recommended by Binz, who embraced the theory of Letzerich, that this disease is produced by a fungus upon which the quinine acts injuriously."

Fungus or no fungus, the remedy is an old one. The use of Peruvian bark in whooping-cough was recognized long ago. We quote from Cullen's "First Lines," chap. vii. paragraph mccccxxv:

"Of the tonics, I consider the cup moss formerly celebrated, as of this kind; as also the bark of the mistletoe, but I have had no experience of either, as I have always trusted to the Peruvian bark. I consider the use of this medicine as the most certain means of curing the disease in its second stage; and when there has been little fever present, and a sufficient quantity of the bark has been given, it has seldom failed of soon putting an end to the disease."

The chapters on cerebro-spinal meningitis deserve special commendation, the author from his official connection, with so many institutions for children in New York, being able to give valuable information about this terrible disease.

Apropos of the relationship between rheumatism and chorea, which is thought by some pathologists to exist, attention is drawn to the somewhat remarkble difference in the statistics of different countries.

"In England and France, so large a proportion of choric patients present the history of rheumatism either in themselves or family, that certain physicians of these countries believe that rheumatism is the most common cause of the disease. In Germany, on the other hand, according to Romberg, in the majority of cases no relation can be traced between chorea and

rheumatism, and the statistics of this city (New York), and I think of this country, correspond with those in Germany."

The best part of the whole book is that relating to the intestinal catarrh of infancy. Dr. Smith is a strong believer in the benefit of country air, and his opinion, will no doubt be endorsed by practitioners in Canada. He thinks the high temperature of summer is not directly the cause.

"But the state of the atmosphere which is most favourable for the development of intestinal catarrh, is found only in the cities. The filthy streets containing more or less decaying animal and vegetable matter, the crowded and unclean tenement houses, the neglected privies, the slaughter-houses, pig-pens, bone-boiling establishments and the like, are so many sources of the most deleterious effluvia, which, inspired by the infant, produce diarrhœa, and intestinal inflammation. Those squares of the city, where sanitary regulations are most neglected are the very ones where the mortality from this cause is largest."

Such is the experience of the profession in Montreal, we venture to say.

The perusal of Dr. Smiths's work has afforded us much pleasure and still more instruction. Its place is amongst the first of American medical works. There is no work on the subject we can more conscientiously recommend to our readers.

Clinical Diagnosis.—A Hand-book for Students and Practitioners of Medicine. Edited by JAMES FINLAYSON, M.D., Physician and Lecturer on Clinical Medicine in the Glasgow Western Infirmary. Examiner in Clinical Medicine to the Faculty of Physicians and Surgeons, Glasgow, &c., &c. with eighty-five illustrations. 8vo. pp. 548. Philadelphia: HENRY C. LEA.

There are a great many manuals of Clinical Medicine,—hand-books of physicians,—and others with different titles, but a similar end in view, already published. Of course many of these are valuable to students, and those beginning the practical observation of cases of diseases at the bedside of the sick in a hospital ward. One great fault of several of them, it has ap-

peared to us, lies in the stray, harsh, dogmatic lines that are drawn in establishing different diagnoses between complaints apt to resemble each other. This every experienced physician knows does not exist in nature and it is therefore incorrect to start a student with the idea that that is what he is to expect to find. It is a fault which is quite inseparable from the plan of endeavoring to give very short and concise lectures for the distinctive systematic diagnosis of most of the important diseases. This procedure is not followed at all in this little book, but, on the contrary, it aims at, and succeeds in, being rather an assistant of personal observation, whilst at the same time it contains much that is eminently instructive, there is more which is suggestive. It does not make any attempt to cover the ground of diagnosis—which is so manifestly impossible—but it discusses in a brief, terse manner, all the important symptoms of each class of diseases, pointing at their connections with each other and with those of other classes, attention being directed to all collateral circumstances which assist in the careful observation of a case as a whole, and in comprehension of such as are governed by definite pathological laws. The method and arrangement is, we think, especially adapted for the wants of students, and we would earnestly recommend it to all such, for constant reference whilst reporting cases in the Hospital. To give some idea of the scope of the work (premising that each section has a fair amount of space allotted to it) we give the list of contributors and their subjects. For a special feature of this book is that it is the joint work of several of the prominent physicians of Great Britain—each one, as in the cyclopœdias of medicine, writing that part pertaining to the branch with which he himself is most familar. Dr. Gardner on the physiognomy of Disease. Dr. Finlayson, On Case-taking, and On Symptoms of Disorders in the Venous Systems. Dr. Wm. Stephenson, On the Disorders of the Female Organs. Dr. Alexander Robertson, On Insanity. Dr. Samson Gemmill, On the Sphygmograph, and On the Examination of the chest and abdomen. Dr. Joseph Coats. On the Examination of the Fauces, Larynx and Nose, and on the Method of Performing Post-mortem Examinations.

Epitome of Skin Diseases with Formulæ.—For Students and Practitioners.—By TILBURY FOX, M.D., F.R.C.P., and T. C. FOX, M.B., B.A. (Cantab). Second American edition, enlarged and revised by the authors. Philadelphia: HENRY C. LEA, 1879.

We have much pleasure in strongly recommending for the careful study of our readers this excellent little book. The study of skin diseases is enveloped in far too much mystery in this age of specialism. There is nothing whatever in the diagnosis and treatment of skin diseases which is outside the province of the general practitioner. It is for him and for students that this little book is written. This, the second American, is a decided improvement on the English edition, for it contains an excellent summary on the difference in skin diseases found in America and those found in England. The most useful part of the book to the every-day practitioner will, doubtless, be the Cutaneous Pharmacopeia appended. The last chapter on "Diet in Skin Diseases," demands very careful attention.

Extracts from British and Foreign Journals.

Unless otherwise stated the translations are made specially for this Journal.

The use of Eserine in Glaucoma—(By W. SPENCER WATSON, F.R.S.)—In a communication to the *Medical Times and Gazette* in February last, I remarked that "sulphate of eserine in the form of collyrium was *said* to be useful either when, from any cause, the operation is delayed, or after the operation if the tension returns." Recent experience has convinced me that this reputed power of eserine is not a mere illusion. I can fully endorse the views expressed by De Wecker in his recently published work ("Thérapeutique Oculaire"), in which he lays down as a rule that eserine should always be employed before and after an operation for glaucoma, whether the operation chosen be iridectomy or sclerotomy. I have been agreeably surprised at the manifest advantages of employing it under these circumstances, and now find that operation may be safely postponed in certain cases for a week or ten

days, or even longer when eserine is used, whereas without it delay seemed almost fatal to the chances of saving or restoring sight. In hospital practice, and perhaps even more so in private, it is often difficult to convince patients of the extreme urgency of the symptoms; and even if convinced, the dread of the knife keeps back nervous patients from the necessary ordeal until it is perhaps too late. It is therefore a great advantage to have at hand a remedy the effect of which is to render delay less dangerous than it must otherwise be, and in eserine we possess such a remedy. The two following cases illustrate this point in a way which to me is very convincing:—

CASE 1—*Simple Glaucoma of both Eyes, with Excavated Discs and Pulsating Vessels—All the Symptoms relieved by the use of Eserine.*

Elizabeth C., aged 39 years, a small woman with dark hair and irides, married and with six children, came to the South London Ophthalmic Hospital on December 30th, 1878, with all the subjective and objective symptoms of simple glaucoma. She said she had been nursing a sick husband, and from various causes had very disturbed nights, and yet been obliged to work hard during the day. For the last eight months her sight had been failing, and she had noticed coloured haloes round the candle. She had never had any pain either in her eyes or in the surrounding bones. The tension was increased in both eyes. Vision of the right eye, letters of J. 20; vision of left, J. 10. Both pupils fixed and half dilated. Both anterior chambers shallow, especially that of the right, in which also the cornea and aqueous were very turbid. Both optic discs were excavated, that of the right eye being very much cupped and pale, as if from some degree of atrophic anæmia, while that of the left eye retained its normal colour, and was even hyperæmic. Venous pulsation was seen in the right eye, but not in the left. This was a clear case for iridectomy or sclerotomy. An operation was at once proposed, but, as might have been expected, the mother of six children, with a sick husband to nurse, was in no mood for sudden and active measures, even though threatened

with the possibility of losing her sight. She was, however, fully warned of the risks she was running by refusing operation, and told in the meanwhile to use the eserine drops twice a day.

January 3rd, 1879.—Patient declares that she has never had the coloured haloes before her eyes since she used the drops. Her vision has decidedly improved; right eye, T. 3, V. J. 10; left eye, temperature normal, V. J. 8. In both the anterior chamber is clear, and the plane of the iris normal.

17th.—The drops have been continued, and there is still further improvement of vision. It is doubtful whether there is now any tension, even of the worst eye.

An operation was again urged upon the woman, who is, however, so well satisfied with the improvement in her sight that she still declines, and is therefore directed to continue the use of the eserine drops and to take quinine.

The improvement in this case followed so closely upon the application of the eserine and its known action upon the pupil, that it is hardly possible to avoid the conclusion that the local application produced the improvement. As, however, in simple glaucoma, temporary ameliorations of all the symptoms are not uncommon apart from medical treatment, it is quite within the range of possibility that a temporary improvement, due to natural causes may have been accidentally contemporaneous with the use of eserine, and that the effect of the latter was simply *not detrimental*, though perhaps not actively beneficial.

In the following case the symptoms were more acute, and though the influence of the eserine was watched for a short time only, there was good evidence that during that period its effect was decidedly beneficial.

CASE 2.—*Acute Glaucoma—Relief of Pain, but no Effect on the Pupil by the use of Eserine—Iridectomy successful.*

Maria D., aged thirty-seven years had suffered for five weeks with well marked glaucoma of the right eye. There were chromopsiæ, severe pain, extreme tension (T_3), and great impairment of vision. She applied on January 20, 1879. The pupil of the right eye was then dilated and immovable, and the

cornea and anterior chamber very turbid." Vision = mere perception of light at the outer side of the field. With the ophthalmoscope only a dull-red reflex was obtainable when examining the pupil. Iridectomy was proposed, but the usual difficulty about the care of children at home (one being eight months old and sucking her mother's breast, and five others being dependent on her care, made it necessary to postpone the operation. Erserine was applied: it relieved the pain, but did not cause contraction of the pupil nor diminution of the tension.

On January 24, the daily use of eserine having no permanent effect beyond the slight relief of pain, iridectomy upwards was performed. On the 31st this patient could tell the time by the watch, the tension was normal, and only a slight amount of pain was complained of. She was directed to continue the use of eserine and to take quinine.

Here was a typical instance of acute glaucoma. The operation was unavoidably postponed, and the use of eserine appeared to delay the progress of the glaucoma during the interval so that eventually the operation was successfully performed. In several instances similar good effects have been obtained. It is therefore probable that in future the use of eserine in glaucoma will become very general. There is a danger, however, that its undoubtedly beneficial influence may be relied on as a substitute for iridectomy or sclerotomy. According to my experience hitherto, its action in the cases in which it has been used would not justify its employment with this view, and I hold that surgical measures must still occupy the first place in the treatment of glaucoma, while local medication, if used, must take the place of a handmaid or assistant to, not that of a substitute for, operative treatment.—*Medical Times.*

Notes on Military Surgery.—(By Surgeon J. LEWTAS, M.B., LOND., Guides Cavalry.)—A few notes of some of the injuries received in the cavalry affair near Futehabad, Afghanistan, on April 2nd, may perhaps interest some of the readers of *The Lancet.* The portion of the Guides Cavalry present on that occasion numbered about two hundred sabres,

and our casualties were five killed and twenty-eight wounded.

Case 1. *Penetrating Gun-shot Wound of Frontal Bone.*—The subject of this injury, a Sikh trooper, was hit by a stray bullet before the cavalry came into action. The bullet entered just above and to the right of the root of the nose. At the same time, also, the right eye-ball projected prominently forwards and was painful. He did not lose consciousness but complained of pain in the head, and especially in the right eye. The eye-ball was uninjured, but the conjunctiva was injected, and there was a small quantity of blood between the lids. He thought that the ball had passed out through the right orbit—a not impossible hypothesis, since bullets were coming across from our left, where the enemy was outflanking us. The subsequent history of the case, too, gave support for a while to his idea, for it seemed to indicate but slight injury to the brain. During the first eleven days the only symptoms were diffused headache and drowsiness, while there was dilatation of the right pupil and ptosis of the right upper eye-lid the two latter symptoms being not impossible results of an injury to the orbit only.

Suddenly, however, on the eleventh day new symptoms developed themselves—viz., epileptiform convulsions followed by coma. The first fit occurred about midnight on April 13th. This passed off in half an hour, leaving a condition of extreme susceptibility to muscular spasm; so much so that the attempt to give him a drink brought on locking of the jaws, twitching of the facial muscles on the right side, and spasmodic movements of the limbs. About an hour later he had a second fit, and the convulsive stage of this was of such duration and attended by such exhaustion—his body being bathed in perspiration and his pulse rapid beyond counting—that I resorted to chloroform-inhalation to bring on the stage of coma at once. A subcutaneous injection of one-sixth of grain of morphia was given to him while under the influence of chloroform, and he then slept for four or five hours. The next day, April 14th, he had a third fit, which was similarly treated, and since then up to the present date April 23rd, there has been no return. Dilatation of the right pupil and ptosis persist. There is, however, no squint, nor are any of

the movements of the eyeball impaired. He is drowsy and somewhat irritable. There is also decided impairment of the memory, as he no longer remembers the occurrences of that day, or even that he was wounded. There is still an abundant discharge of yellowish-green pus from the opening in the frontal bone, and there is some prominence of the inner angle of the roof of the right orbit.

Remarks.—The course and symptoms have not, I think, confirmed the opinion of the man himself that the ball escaped by way of the right orbit; the injury to the contents of the latter would have been greater, whereas the protrusion of the eye-ball would be sufficiently accounted for by a depression of the roof of the orbit caused by the bullet in its passage backwards. There can, I think, be little doubt that the ball has lodged within the skull, but at what precise spot it is impossible to determine.

CASE 2. *Gun-shot Fracture of Great Trochanter of Femur; death on nineteenth day.*—The bullet in this case entered at the outer side of the left thigh, about two inches below the great trochanter, passed upwards and inwards, splintering that projection, and finally lodged superficially over the base of the sacrum, where it pointed. Its position, however, was not so superficial that the bullet could be grasped between the finger and thumb; it gave rise rather to a diffused swelling, in which the exact position of the bullet was uncertain. Hence, I did not feel justified in cutting into this prominence, and sent him as he was to the field hospital at Jelalabad, where a few days later the bullet worked towards the surface, and was extracted. The discharge from the track of the bullet was abundant and fetid; syringing the wound twice and sometimes oftener daily with carbolic lotion, and a free use of disinfecting powder (McDougall's) failed to keep down the fetor He was further weakened by obstinate diarrhœa, over which treatment of various kinds had little effect. He died on April 20th, nineteen days after receiving the injury.

Remarks.—It is not the time yet to gather up the lessons upon gun-shot fracture of the thigh derived from the war. Five cases have now come under my notice, and they have all supported the received canons of military surgery; especially have

they shown the advisability of *immediate* amputation in fractures of even the upper third if, as is invariably the case in hill warfare, the patient has to be carried many miles to a permanent hospital, for on arrival at the latter he is so exhausted by the journey, and the limb is so much swollen, that an amputation then performed has most unfavorable results. In saying this I have two cases in particular in my mind, both of them gun-shot fractures of the upper half of the femur. One of these was carried from Ali Musjid to Jumrood, about ten miles, the other was carried for more than twelve hours in a dhooly, part of the time in darkness over rocks; and both of them died under the subsequent operation. The case of a man so injured is desperate, and justifies desperate measures: if, under the conditions supposed, his chance of life is increased by immediate operation, then the general rule of deferring all operations until arrival at a field hospital may surely be departed from, and advantage taken of the first halt to amputate the limb. The other plan has been tried, and with melancholy results; this, of imediate treatment (under the circumstances mentioned) has not yet had a trial.

Cases 3, 4, 5, and 6 were bayonet-wounds — two of them non-penetrating of the walls of the chest, and which soon got well; the third peculiar from its situation—viz., the right side of the fauces. The subject of it was leaning over in his saddle to make a cut, and received the bayonet in his mouth. The symptoms were only slight—some pain in swallowing, with slight swelling and tenderness of the neck.

The last case was a more serious one. The bayonet entered about two inches to the left of the navel and penetrated the peritoneum. Acute pain and collapse followed immediately, and some air seemed to have entered with the movements of respiration, for a few hours later the abdomen was tympanitic. Localised peritonitis followed, but the patient is now (April 23rd,) convalescent.

Case 7.—This is worth mention, as showing what terrible injuries a man will survive for a short time. The skull in this case, that of a non-commissioned officer, was cleft transeversely

across the vertex, the sides of the cleft being separated in the widest part by an eighth of an inch, and the cleft extending from ear to ear. In addition to this another saber cut had raised the parietal portion of the temporal bone from its connections. Yet this man lived until the fifth day, and never lost consciousness until shortly before death.—*The Lancet.*

Remarkable Operation.—M. PEAN, the well-known surgeon of St. Louis Hospital has recently performed an operation which has considerably occupied the minds of the medical world in Paris. The patient was a man suffering from cancer in the pylorus, and was, at the time of the operation, in the last stage of cachexia, he not being able to retain any food in his stomach, and having to rely almost entirely on nutritive enamata for sustenance, which, as usual, were found to be insufficient. He accordingly applied to M. Péan to take some operative measures to relieve him, or, if nothing could be done, he was decided, he said, to put an end to his life. M. Péan, rather reluctantly, agreed to comply with the entreaties of the patient and his relatives, and decided to attempt an operation. An incision, about ten centimetres in length, was made on the left side of the umbilicus and parallel to the linea alba. When the peritoneum was opened the stomach was found to be considerably dilated, extending downwards as far as the pubic arch. Its walls were greatly hypertrophied. The peritoneum did not seem to be affected in any great degree. The pyloric portion of the stomach was then gently drawn forwards, when it was found that the growth measured six centimetres transeversely and four in a vertical direction. The whole of this mass was excised, as was also a portion of the epiploon, which was diseased. The two surfaces of section were then drawn into contact by means of catgut sutures. No liquid of any kind was allowed to enter the peritonal cavity during the operation. The abdominal wound was closed in the ordinary manner. The operation lasted two hours and a half. For the first two days after the operation the patient was fed by the rectum, but on the third day some food was allowed to be introduced into the stomach. During the

first three days the pulse remained alarmingly weak, consequently it was decided to perform transfusion. Fifty grammes of blood were introduced into the midian cephalic vein on a first occasion, and subsequently eighty more were injected. Unfortunately his condition did not improve, and he died on the night of the fourth day. He had shown no signs of peritonitis during these four days. It is much to be regretted that it was not possible to obtain permission to perform a necropsy, as it would have been highly interesting to see what had become of the catgut sutures, and to know whether the intestinal wound showed any signs of uniting.—*The Lancet.*

Intravenous Injection of Ammonia.—Dr. GASPAR GRISWOLD in the *New York Medical Record* uses for intravenous injection a drachm of a fluid containing equal parts of ordinary aqua ammoniæ and water. The vein is rapidly laid bare and the fluid injected. In the case of two moribund patients, he succeeded in making the vital flame flicker for a few hours longer than it would naturally.

The most interesting case he cites is that of a woman, aged 47, who came into Bellevue Hospital on the 29th April with ascites, supposed to be due to cirrhosis of the liver. The right pleural cavity was full of fluid. Seven quarts and fifteen pints were taken from the abdomen. The patient was nearly dying on the 4th May from dyspnœa. Thoracentesis was performed, and ninety ounces of clear serum withdrawn. She nearly died under the operation, but was kept up by fifteen or twenty half-drachm doses of whiskey administered hypodermically. Dr. Griswold's colleagues were of opinion that the woman was dying, and that further treatment was useless and even absurd. The Dr. injected ammonia, and in fifteen seconds there was marked increase in the force of pulsation.

In two minutes the pulse was plainly perceptible at the wrist, beating 100. Half an hour afterwards she was perfectly conscious and reported herself comfortable, though weak. To make a long story short. Dr. Griswold reports that on the 17th of May she sat up nearly all day, and was gaining strength.

Cases in Surgical Practice.—The following cases are reported in *The Lancet*, taken from Mr. Jonathan Hutchinson's Clinical Lectures, they are of interest because of their rarity :

Paralysis of the Fifth and Third Nerves on the same side, probably from Syphilitic Gumma.

The patient, a pallid man of middle age, had complete ptosis, dilated pupil and entire inability to use the three third nerve recti. In addition, he had numbness of the whole of the side of the face, not, however, amounting to absolute anæsthesia, with wasting of the temporal and masseter muscles and of the anterior belly of the digastric. Thus there was proof of implication of the trunk of the third and of both roots of the fifth. The condition had been increasing for some weeks, and was unattended by other indications of cerebral disorder. The demonstration of the paralytic atrophy of the three muscles was very definite and interesting; not the slightest action on the part of any of them could be detected. I drew attention to the fact that the buccinator had wholly escaped paralysis, as it almost always does in motor failure of the fifth. The eye was not in the least congested, and its being perfectly covered by the drooping lid was no doubt a valuable protection to it. The man was to be congratulated in one respect—that, having paralysis of the fifth, he had also paralysis of the third. There was the history, as is usual in these cases, of remote syphilis; and iodide of potassium, in ten-grain doses, was prescribed.

Destructive Symmetrical Iritis without evident cause.

A very important example of this affection was sent to me by Mr. Charles Palmer, of Yarmouth. The patient is a single young woman of about twenty-five. No cause—that is to say, neither syphilis, rheumatism, gout nor injury—can be made out, and the general health appears to be good. The iritis has been most severe, and has resulted in blindness with occlusion of pupils and disorganisation of the iris-tissue. It is remarkable that it has been almost wholly painless. An almost precisely similar case was that of a young man from Sheffield, who was also under care at the same time. In him the eyelashes had turned white. I suspect that these cases are neurotic in origin.

Chancre of the Upper Lip.

A young man was admitted six weeks ago with a large indurated sore on his lip. Its characters were most definite, and under the jaw were a number of enlarged glands. The skin was covered with a lichenoid and papular rash. He did not know how he had caught the sore. He first observed a little crack, then a month later it began to inflame and harden, and in another month the rash began to appear. Having remarked on the case as an example of non-venereal syphilis (*syphilis sine coitu*), or probably chancre from kissing, I drew attention to it as an illustration of the early stages of the disease. For practical purposes we may divide the early phenomena of syphilis into three periods of one month each. The first month is occupied by the incubation of the chancre, and during it there is either no sore at all, or a sore which is soft, suppurating and without definite character. At the end of this first month the process of induration will be commenced. Another month may be allowed for the full development of the chancre and for first appearance of the constitutional symptoms; and at the end of two months from the contagion the sore may be expected to be very hard, the bubo well characterised, and the skin mottled with a roseolous rash. If treatment be avoided, the rash will develop further, during another month, and at the end of three the chancre will still be in full vigour, and the skin covered with a multiform eruption. The disease will now be at its full height, and it is at this period that iritis and retinitis are most likely to occur. In this case the lad has now been one month under treatment by two-grain doses of grey powder three times a day; and, without ptyalism, and without any interference with general health, the induration has melted away, and the rash almost wholly disappeared.

Case of Rapid Cure of Severe Syphilis by Profuse Ptyalism.

In connection with the above, in which syphilis is being cured by small doses of mercury administered through a long period, salivation being avoided. I drew attention to another, which occurred a month ago, in which profuse salivation appeared to

be productive of the best results. A married woman of middle age was admitted with a most copious scaly and papular eruption. It covered her face, trunk and extremities, not any part escaping, and the profuse production of scale-crusts was a very remarkable feature. On the arms it might have been taken for common psoriasis, but on the face there could be no doubt as to the diagnosis. Mercurial baths were ordered, but after the third she became freely salivated. For a week or two she was confined to bed, and in a very feeble state from the profuse ptyalism. During this period the eruption vanished as if by magic. No more mercury was used in any form, and at the end of a month the woman left the hospital covered with stains, but having nothing whatever remaining but stains. She was charged to return in a month, that we might know if any relapse occurred.

I remarked in connection with this case that it was the most rapid cure of a severe secondary eruption which I had ever known. Although, on the whole, I prefer the long-continued treatment by small doses, yet it is well to bear in mind that in certain cases mercury appears to be far more efficient when pushed to its full physiological influence. We must avoid prejudging the question, and keep our minds open for the reception of all evidence that may be forthcoming. In some acute inflammatory affections, not syphilitic, benefit is observed immediately that salivation occurs, whilst none is witnessed before.

Interstitial Keratitis, with Deafness.

His deafness was symmetrical. It had come on during the last three months, and it had progressed to such an extent that the lad carried in his hand a slate and pencil for writing. He had not had any discharge or pain, but he complained bitterly of "such a ringing in my ears." I remarked that deafness of this kind and intensity, and at this age, was almost conclusive in itself as to inherited taint. We know of no other affection which in young persons can, without otorrhœa or any proof of inflammation, proceed in the course of a month or two to the entire loss of the function. Such cases are common enough in

those who inherit syphilis, and they occur in connection with no other cause. In this instance the lad suffers also from symmetrical keratitis, and of this disease precisely similar statements are true. Thus, although his physiognomy is scarcely peculiar, his teeth are well formed, and we know nothing of his family history, yet the simultaneous occurrence of two maladies, each of which is characteristically syphilitic, justifies us in a confident diagnosis.

Paralysis of both Six Nerves after Injury to the Head.

The man in whom this lesion is present has, in all probability, suffered a fracture through the base of the skull. He bled at both ears and from the nose. His portio dura is paralysed on the right side, and he is deaf in both ears, though not absolutely so, and in the right he was, he says, deaf before his fall. Both six nerves are absolutely paralysed, and the eyes converge. The man is quite free from brain symptoms, and he is doing well. In anticipation of arachnitis he was put under the influence of mercury during the first week, but as he is now wholly without symptoms, excepting the paralysis, it has been discontinued.

What the precise lesion may be which has caused complete paralysis of both abducentes it is somewhat difficult to conjecture. In all probability, the fracture crosses the right petrous bone, and it may cross the sella turcica. I mentioned at the bedside that I had seen several cases of paralysis of one sixth nerve after injury to the head, but that I did not remember one in which it was double. During the same week I had seen with Dr. Macpherson of Midmay-park, a little girl who had been knocked down in the street by a horse, and in whom, without any other cerebral symptoms, the right sixth nerve was quite paralysed.

Recovery from Paraplegia possibly of Syphilitic origin.

We sometimes, in going over the past life-histories of our patients, come upon interesting fragments of evidence, always, however, to be taken with a certain amount of hesitation on account of the sources of fallacy. A gentleman who consulted me a few days ago for a syphilitic gumma in his tongue, told me that he

had formerly suffered from paralysis, and had wholly recovered. The facts were these. Fifteen years ago he had syphilis with eruption, &c., rather severely, and took mercury. Almost as soon as his treatment was over, he began rather suddenly to lose the use of his legs. The weakness began at his heels, and crept upwards, and his lower extremities wholly failed. He was on the couch for three or four months His arms were weak, but not wholly paralysed. After four or five months' treatment he wholly recovered, and has never since had any reminder of it. He was married at the time, and married a second time some years afterwards. He has now enjoyed ten years of good health, and has, during that time had nothing of a specific character.

Intercarpal Dislocation.—(Under the care of Mr. C. E. RICHMOND, of the Warrington Infirmary and Dispensary).—Dennis S——, aged forty-seven, miner, a muscular subject, with well defined anatomical points, was admitted March 14th, 1879. He was working at a thrashing-machine when the strap of the fly-wheel caught his arm and dragged him up to the top of the wheel (the height of which was stated to be about nine or ten feet), from whence he fell on his hand. He could not state whether he fell on the back or palm of the hand. There were several skin lacerations (done by the strap) midway up the forearm, but no fracture of the radius and ulna was discoverable. There was, however, marked deformity at the left wrist. The length of the hand from the wrist to the knuckles was very noticeably shortened. There was a prominent transverse ridge on the dorsal aspect of the wrist beneath the ends of the radius and ulna; and below this ridge there was a marked depression. On the palmar aspect the base of the hand was unduly prominent, the general direction of the metacarpal bones being quite altered by their bases being pushed forward towards the palm. The diameter of the wrist, both laterally and antero-posteriorly, was much increased. There was not very much bruising or swelling of the soft tissues themselves, though the circumference of the wrist, taken round the extremities of the radius and ulna, was one inch and a quarter more on the injured

than on the sound hand, and below this point the difference was even more marked. He was unable to flex or extend his hand himself.

On examination the ends of the radius and ulna seemed separated from each other somewhat. The transverse dorsal ridge before mentioned could be demonstrated to be the first row of carpal bones, with the semilunar rather unduly prominent. Between this ridge and the ends of the radius and ulna the movements of flexion and extension, although restricted could be obtained with considerable ease and without any crepitus. Below the ridge the extensor tendons could be plainly felt stretching across the depression to the fingers.

The articulation between the thumb and the trapezium was not interfered with, nor had any of the articulations between the metacarpals and second row of carpals sustained any injury. On the palmar prominence before mentioned the trapezoid could be felt pushed more anteriorly than, and considerably above, the level of the trapezium, and nearer the ulnar side the head of the os magnum could be felt overlapping slightly the ends of the radius and ulna, which on the palmar surface were quite obscured; and on flexion and extension of the hand the os magnum could be felt to ride on their anterior surface. The displacement of the unciform, although distinct, was much less marked. Under no circumstances could any crepitus (other than that attributable to effusion) be detected, nor was there any sign of fracture whatever.

The result of examination showed that the second row of carpal bones was dislocated from the first forwards and upwards, the displacement was most marked in the case of the trapezoid and os magnum.—*The Lancet.*

Movements of the Eyelids.—A paper was read before the Royal Medical and Chirurgical Society on the "Movements of the Eyelids," by W. R. GOWERS, M.D., of which the following is an abstract: Under normal conditions the lids leave the cornea approximately uncovered in all positions of the eye-ball moving with it. For these movements, and

for the voluntary closure and opening of the lids, there are only two muscles, the orbicularis and the levator. These will not expain all movements, and it is probable that the eyeball itself moves the lids, not by the conjunctival connection but by the pressure of the convexity of the sclerotic, and to a less extent of the cornea, the edges of the lids lying in or near the sclero-corneal sulcus. This effect is greatest on the upper lid, partly because the tarsal cartilages are attached, at their extremities below the transverse axis of the eye-ball. The eyelids are moulded on the globes, the shape of the palpebral fissure depending on the position of the eye-ball, and being curiously altered in some abnormal lateral positions. In closing the eye-lids gently the lower lid is raised by the palpebral orbicularis; in rotation up of the globe the lower lid is raised, not by the orbicularis, but by the pressure of the globe, and the movement is slight if the globe is very prominent. Depression of the lower lid in looking down is by pressure of the cornea. The upper lid is maintained in position by the balance of tone between the levator and the orbicularis. If the latter is paralysed, the lid is a little higher than normal. The descent of the upper lid in looking down is not by contraction of the orbicularis (for it is unaffected in facial palsy), but is by the pressure of the sclerotic against the tarsal cartilage. The lid is raised on upward rotation of the globe by the levator, the contraction of which, if sudden, is excessive. With this is associated a synergic action of the frontalis; the latter is sometimes habitual, and then is relaxed with the levator on looking down. The action of the levator, associated with that of the superior rectus, is beyond voluntary control, and, in the simulated ptosis of hysteria, necessitates a strong contraction of the orbicularis to keep the lid down, if the patient is made to look up. The associated relaxation on looking down prevents almost all voluntary contraction of the levator in that position. Gentle closure of the lids, as in sleep, is by the palpebral orbicularis; the levator being relaxed, the recti passive. Forcible closure is by the whole orbicularis, the levator being released and dissociated from the superior rectus, which contracts, rolling the globe up. Hence, probably,

the centre for strong closure of the eyelids is physiologically distinct from that for their gentle closure. If the orbicularis is paralysed the associated inhibition of the levator still occurs on an attempt to close the lids. But, if the inferior rectus is paralysed, a fruitless attempt to rotate the eyeball down is not attended with inhibition of the levator. This phenomenon (of which photographs were shown) is difficult to explain. Possibly this relaxation of the levator is not the result of a central mechanism, but is reflex from the commencing tension on the fibres, and so does not occur if the globe does not move. If so, the fact is of much interest in relation to the mechanism of other movements in the body. Lastly, it is pointed out that the eyelids commonly participate in the movements of the eyeballs in vertical nystagmus.

Ophthalmoscopic appearances in Tubercular Meningitis.—The following is an abstract of a paper on the "Ophthalmoscopic Appearances in the Tubercular Meningitis of Children," by GEORGE GARLICK, M.D.:—The ophthalmoscope discloses changes in the optic discs of about 80 per cent. of the children who die of tubercular meningitis. These changes fall under one of two heads—viz., optic neuritis or distension of the retinal veins alone. As the discs vary physiologically in different individuals and even in the same person, the two are often not alike; progressive change is better evidence than can be obtained from a single examination. In a small proportion of cases the optic changes occur very early in the course of the disease, and enable a diagnosis to be made when the symptoms are equivocal; this is the case when the meningitis is seated chiefly about the optic commissure. But the ophthalmoscopic changes are an important factor in the diagnosis in a much larger number of cases. The two forms of disc change—viz., optic neuritis and distension of the veins—appear related respectively to meningeal inflammation and pressure. The intracranial pressure may result from excess of ventricular or of subarachnoid fluid, and gives evidence of its presence in the anæmia of the cranial

contents. The palsy of the limbs is mostly found on the side opposite to that hemisphere of the brain which presents that greatest meningeal affection. No such definite relation exists with regard to the optic discs. In many cases of tubercular meningitis which run an indefinite course, especially those which are secondary to some other advanced disease, the optic changes share the indistinctness of the other symptoms. The ophthalmoscope countenances the idea that some cases of tubercular meningitis recover, and, even in fatal cases, a temporary improvement may occur in the discs. Tubercles of the choroid appear to be an uncommon complication.—*The Lancet.*

Gas in Peritoneal Cavity in Typhoid Fever relieved by Puncture.—Mr. GEORGE BROWN read a paper before the Clinical Society of London on a case as above. The patient, a young man aged twenty-one, was under Mr. Brown's care for typhoid fever in October last. The temperature was high throughout, ranging from 102° to 105.2° during the height of the fever. The case was complicated with double pneumonia. In the third week of the fever tympanites developed, which was at first localized to the parts of the abdomen occupied by the intestines, but a few days later the physical signs indicated that gas had escaped from the intestines into the peritoneal cavity, or was being generated in the cavity itself. The distension of the abdominal wall gradually became more and more extreme, the tympanitic note entirely masking the hepatic and splenic dulness, and could be elicited over the sternum as high as the articulations of the fourth costal cartilages. Through the upward pressure on the diaphragm there was urgent dyspnœa, the respirations reaching as high as 50 per minute, and the heart was displaced upwards and outwards, so that the apex-beat was half an inch outside the nipple and in a line with it. Mr. Brown pierced the abdominal wall with a small aspirator trocar an inch below the umbilicus, and on withdrawing the cannula a rush of gas took place which continued for several seconds. The gas was odourless. The relief was immediate, the heart regained its normal situation, and in a few minutes the

respirations fell from 50 to 36 per minute. No ill effect followed the operation. The patient succumbed, however, from the lung complications thirty-six hours after. As to the source of the gas, Mr. Brown dismissed the idea of perforation of the intestine on the following grounds, viz. :—1. The gradual development of the gas in the peritoneal cavity. 2. Absence of symptoms of collapse which might have been expected had perforation taken place. 3. The fact that the tympanitic condition of the colon and small intestines was unrelieved by the operation. Had perforation existed, gas would probably have continued to escape into the peritoneal cavity after the operation, but of this there was no evidence, although the patient lived thirty-six hours afterwards. 4. The fact that the gas was odourless. Mr. Brown advanced two theories as probable sources of the gas: first, the gas might have passed by diffusion through the intestinal wall; or second, the gas might have been derived directly from the blood by exosmosis through the delicate wall of the peritoneal capillaries—and this was the more probable, from the fact that several days previous to the distension taking place the blood was highly charged with carbonic acid gas in consequence of imperfect aëration in the lungs. Mr. Brown said he was unable to decide this point, and preferred to merely record the case in the hope that other observers would be able to throw more light upon the subject should similar cases occur in their practices.—*Medical Times.*

Amussat's Operation in a case of Imperforate Rectum. — Mr. MORRANT BAKER read notes of a case of imperforate rectum, for which Amussat's operation was performed, in a female infant, who, when nineteen days old, came under the care of Mr. Morrant Baker at St. Bartholomew's Hospital. When first seen, the abdomen was enormously distended; there was frequent vomiting, and the child was much exhausted. Chloroform having been administered, an attempt was made to find the lower end of the bowel, through the short *cul-de-sac* which represented the anus. The bowel, however, could not be found, notwithstanding very free

incisions, and in spite of the great distension of the abdomen, no bulging of the parts could be detected, even during the action of the abdominal muscles. It was decided, therefore, after a consultation, to desist from furthar operative procedures in the neighbourhood of the anus, and to perform colotomy by Amussat's operation in the left loin. This operation was accordingly performed. Meconium freely escaped, and within a few hours the infant was greatly relieved. An elastic tracheotomy-tube was inserted into the bowel through the wound in the loin, and had been worn continuously ever since. In this way all troubles which might have arisen from contraction on the one hand, or prolapse on the other, were avoided. A year after the operation it was noted that the child was well and wore the elastic tube; fæces passing only once or twice in the week. The abdomen was, however, not distended. Two years after the operation the note was the same, and the child, now nearly three years old, was shown to the Society, perfectly well in health, and still wearing the elastic tube in the loin. Instances of recovery, it was remarked, after the performance of colotomy for the relief of imperforate rectum were curiously rare, and probably the case shown to the Society was the only one now in this country. The question as to the best operation to be performed in cases of imperforate rectum, in which the bowel could not be found at the outlet of the pelvis, was discussed, and Mr. Baker thought that, on the whole, a preference should be given to Amussat's rather than to Littré's method of colotomy.—*Medical Times.*

WARNER'S PILLS OF QUININE.

We have received from Messrs. Warner & Co., a sample of their pills, containing gr. ii. of Quinine in each pill. These are thoroughly reliable preparations, and are beautifully put up, being coated over with sugar. The use of sugar as a coating for pills has been objected to, but there is nothing that in verity can be advanced against this method of coating these preparations. It is stated that in sugar-coated pills the drugs become dry and hard and soon loose their efficiency—not more so we should suppose than in drugs prepared in the ordinary way. But everything in nature is perishable, and will in time deteriorate. These pills, like others of Messrs. Warner & Co's. preparations, are made for use and not to be retained for any length of time in stock. We commend them as being reliable, and in being the most palatable form of taking medicine.

CANADA

Medical and Surgical Journal.

MONTREAL, JUNE, 1879.

REGISTRATION OF COLONIAL DEGREES.

There is a considerable amount of egotism in the sayings of some of our exchange journals of British heritage concerning this subject of the recognition of Colonial degrees. The Editor of *The Medical Times and Gazette*, in an article on "Colonial Medical Registration," informs us that he has been trying to establish reciprocity of Registration between the colonies and the mother country, and then quotes the Letter of Dr. Baldwin, a Registered Practitioner of the United Kingdom, to which we have already referred on a former occasion.

In the number of our Journal for December, 1878, we endeavoured to aid the understanding of our English contemporary touching our Canadian institutions, but it would appear that we were not sufficiently explicit. We fail to see in what particular *The Medical Times* has in any way advocated reciprocity of Registration between Canada and the mother country, and on referring to an article which was published by that periodical on the 16th November, 1878, the directly opposite inference must be drawn therefrom. But probably the Editor of *The Medical Times and Gazette* did not take the trouble to read our article, and he again falls into error as regards Canada and our Registration system. He states that "the Privy Council of Canada has omitted to notice that when the British Medical Act of 1858 passed, the Ontario College did not exist, and that for anything that appears, there may not have been at that date any Licensing Body in the British North American Provinces." Now the facts of the case are these: Medical legislation in this colony dates back to the 28th year of the reign of His late

Majesty King George the Third, which was shortly after the conquest of the country. The affairs of the profession were administered under that Act, which provided for the granting of a license, to entitle the holder to practice physic, surgery and midwifery in the then Province of Canada.

Having enlarged our borders, and several provinces having grown out of this single province, it was found expedient to seek for further legislation, and in 1847, the profession was incorporated under the name and style of the College of Physicians and Surgeons of Lower Canada. One of the provisions of this Act gave to holders of its license the privilege of legally practising in any part of what at that day constituted the Provinces of Upper and Lower Canada.

By the provisions of the Act of 1847, no person could obtain the license unless he could show that he had studied medicine, surgery and midwifery during four consecutive years, during which time he was required to attend two full courses of Lectures on the various branches of Medical science delivered at some university, college or incorporated school of medicine, and produce evidence of having attended the regular practice of a hospital of not less than fifty beds during a period of eighteen months. A candidate with the credentials above named could obtain his license by examination. If, however, he was the holder of a degree or of qualifications covering the ground of medicine, surgery and midwifery from any recognised British or Provincial university or college, he was entitled to receive his license on the payment of fees without examination. This, then, is the position in which we stand at the present day, and all British Graduates are admitted to license on what their papers show forth. We are in Canada General Practitioners. If a pure surgeon comes to us for a license he can only obtain such license on passing an examination in medicine and midwifery; if, however, these branches are covered by other qualifications, he is admitted to practise at once and the license issued on payment of fees. There can be no hardship in this. We simply think it preposterous of our British friends to remain in their pig-headed ignorance and attempt to write about our institutions, of

which they know nothing. It is lamentable to see *gaucheries* perpetrated almost in each issue of some of the British periodicals. Our friends on the other side of the Atlantic had better take notice and understand that we in this despised colony gave them the lead in medical legislation by our Act of 1847, and that the Ontario Legislature passed, some twelve years ago, an act enunciating and carrying out the central examining system, or the one door of entrace into the profession, a system that is being advocated at the present day before the British House of Commons.

EXTRACT OF MALT.

There is probably no parallel, in the history of therapeutics, to the rapidity with which this most valuable agent has forced its way into universal favor with the profession. Until a year or two ago its use, in Canada especially, was of the most restricted character, now there are few practitioners who do not occasionally prescribe it. While no medicinal agent has achieved such favor, it may also be said there are few remedies possessing such well-founded claims for general favor, and none whose range of application is so wide. Its constituents are malt-sugar, dextrine, diastase, phosphates, the importance of which to the digestive process need not be discussed. The clinical evidence, too, which has sanctioned the physiological claims of Malt Extract is most abundant. Authorities, abroad (it is officinal in Germany) and at home emphatically recommend it. Niemeyer, Oppolzer, Werber, Bock, Hoppe-Seyler, Heimerdinger, Juergensen, Schrœder and Ziemssen, in Germany; Trousseau, Gosselin, Hardy, Mauduit and Pillois in France; Ramagalia, Testa and Tartaglia in Italy; Aitken, Anstie, Richardson, Chambers and Thompson, in England, are among the writers who speak in favorable terms of its use. In America the testimony is to the same effect. In Canada, as we have said, it has been received by the profession with the greatest favor, and a large number of the profession have already given formal, as well as practical, endorsation to this preparation.

Regarding Malt Extract, Dr. Niemeyer says:

"The class of diseases in which the chief, if indeed not the only task of the physician, is to maintain or restore the strength and nutrition of the patient, is very large. For several years past, to meet these indications, instead of prescribing cod liver oil, which I was formerly in the habit of doing, I have employed almost exclusively, Malt Extract, and with the very best effect. This substance must not be confounded with Hoff's and other so-called malt extracts, which are only a kind of beer containing a large proportion of carbonic acid and alcohol, which are often injurious to the patient. It is similar to other medicinal extracts, and consists of the soluble constituents of Barley Malt."

According to Professor Douglas, 1000 parts of the Trommer Extract of Malt contains: malt-sugar 46.1; dextrine, hop-bitter, extractive matter, 23.6; diastase, 2.469; ash-phosphates, 1.712; alkalies, .377; water, 25.7. In comparing this analysis with that of the Extract of Malt of the German Pharmacopœia, as given by Hager, he finds it to substantially agree with that article.

Malt Extract, with its combinations, is recommended in the following diseases: anæmia, chlorosis, marasmus, dyspepsia, neuralgia, insomnia, pulmonary and bronchial affections, dysentery, constipation, scrofula, convalescence from exhausting diseases, &c. We have used the Trommer Extract in some of these affections with satisfactory results, and have no hesitation in strongly recommending it.

[Mr. R. L. Gibson, agent for the Trommer Company, is desirous of securing reports from physicians of their experience in the use of Extract of Malt, and requests us to say that such courtesy would be very highly esteemed. He will also be glad to answer any enquiries, and to furnish samples on application. Address: P. O. Box 724, Montreal].

Medical Item.

Charles H. Murray, B.A., M.D., C.M., McGill University of the Session of 1876, also M.R.C.S., Eng., passed the competitive examination for the Indian Medical Service, on February 17th last. There were fourteen vacancies and thirty-three candidates, and Dr. Murray stood eighth on the list of successful candidates. We believe Dr. Murray is at present serving at Netley.

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CANADA

MEDICAL & SURGICAL JOURNAL

JULY, 1879.

Original Communications.

DISLOCATION OF THE RIGHT HIP JOINT INTO THE ISCHIATIC NOTCH;

OCCURRING FROM A FALL, IN A BOY AGED FOUR YEARS.
Reduction by Manipulation.

By George E. Fenwick, M.D.,
Professor of Surgery, McGill University; Surgeon to the Montreal General Hospital.

Cases of dislocation of the hip-joint are comparatively rare accidents, more especially amongst children. Having recently met with a case of dislocation in a child of four years, I deemed it of sufficient interest to place on record. C. C., a little boy of 4 years, was brought by his mother to the Montreal General Hospital on the 24th June, 1878, with what was supposed to be the commencement of hip-joint disease. The history, as given by the mother was that while running he slipped, with his right leg bent beneath his body, and fell on the side, receiving what was supposed to be an ordinary contusion. The accident occurred some ten days before admission. When seen he was lying on his back in bed, the right knee was rotated inwards and advanced, lying upon and overlapping the left thigh; it was slightly flexed at the knee-joint, and the mother stated that he was unable to stand or walk. There was flattening of the trochanter, and considerable fixity of the limb. The examination was conducted on a table. On attempting to place the limbs together and extending them, the loins were arched forwards, a condition which was reduced when the injured limb was flexed on the pelvis, but there was not that amount of fixity which is usually seen in these cases, but some shortening.

Feeling satisfied that I had to deal with a dislocation backwards into the ischiatic notch, chloroform was administered, and reduction by manipulation practised. Seizing the ankle in my right hand, the leg was flexed on the thigh at the knee-joint, the thigh flexed on the pelvis, and carried first towards the left side, to a little more than at a right angle. Abduction and rotation of the limb outwards was then performed, when an audible snap occurred, and on extending the limb it was found that the head of the bone had returned to its natural position, the limbs had assumed a symmetrical appearance, were of equal length, and the motions of the joint free and the sensation quite normal. The limbs were then bandaged together, and the child returned to bed. The mother was obliged to return home, as she was from the country, and she objected to leave her child at the hospital, so that they were discharged on the 26th June, two days after the reduction. In the meantime no untoward symptoms had been developed, and she was instructed to return, should any further trouble occur.

The following table is taken from cases reported in Hamilton's work on Fractures and Dislocations, and is compiled to show that these injuries may occur at a very early age under peculiar circumstances:—

No.	*Age.*	*Situation*	*Authority.*
1.	6 months.....	Thyroid Notch.....	J. Powdrell, in *Lancet.*
2.	18 months.....	Dorsum ilii.....	1 *Gazette Medicale.* 1 Dr. Fanning. In Hamilton, on Fract. and Disloc.
3.	3 years.....	1 Dorsum ilii ..... 1 Ischiatic notch... 1 Not stated	1 Mr. Kirby, in *Dublin Med. Press.* *Dr. Buchanan's Magazine.* Malgaigne.
1.	3½ years.....	Dorsum ilii.....	Mr. Image, *Prov. Med. Journal*
1.	4 years.....	Dorsum ilii.....	*J. M. Litten*, Texas.
1.	6 years.....	Incomplete, Thyroid Foramen.....	J. C. Warren.

Dislocation of the hip-joint, as occurring in early life, is comparatively a rare accident. We may account for this from the fact that young children are less exposed to injury, and that from their light weight are capable of sustaining injury with comparative immunity. It has been stated that dislocation of the hip-joint never occurs before the seventh year of life. This is an error;

there is one well-authenticated case of dislocation downwards and forwards into the thyroid foramen, which was reduced by manipulation at the end of a week, the patient being a child of six months, who had overturned a chair in which she was tied. Reported by Mr. Powdrell in the *Lancet* for May 16th, 1868.

This will suffice, on this point. It is alone at the earlier ages that an accident of this nature might be overlooked by a surgeon, until too late to remedy it, by attempting reduction. The case here reported ought to point to the necessity of careful examination of young children in cases of injury through accident. Very young children are incapable of indicating the precise nature of an injury, and those of more advanced years, may, through fear, conceal an injury until it is too late to do any good by surgical interference.

CASES OF INTERMITTENT FEVER.

Treated in the Montreal General Hospital in the Months of May and June, 1879.

By James Bell, M.D., House Surgeon.

During the months of May and June of this year (besides the cases treated in the out patient department) there were four cases of ague treated in the Hospital. Two were under the care of Dr. Reddy, and two were under Dr. Osler's care. The following brief notes of these cases are worth recording I think, as they show that ague does originate not only in the island of Montreal but in the city itself, though this fact is often disputed by practitioners having large experience of the diseases which occur in Montreal. Three out of four of the cases reported clearly originated in the island, while case IV undoubtedly originated in the city of Montreal.

Case I.—A. I., æt. 28, was admitted on the 22nd of May. He is a strong muscular Englishman, but looking a little sallow. He came from England fifteen years ago, and went to work as a lumberman on the Upper Ottawa. Five years ago he came to Montreal, and has not been further away from the city than Lachine since that time. Has never been in a malarious district to his knowledge. He is a man of temperate

habits, and has always enjoyed good health. In January last he went to work on the Lachine Canal, about five miles from the city. Seven weeks prior to his admission he was working on a derrick, and while at his work he became giddy and fell off. He had no chill but felt very sick, and could not return to his work. Three days later he had a severe chill at 11.30 p.m., which lasted about an hour and a half, and was followed by three hours of high fever. He then perspired profusely for five or six hours, and felt rather better as the attack passed off, but was not able to go to work. He had a similar attack every second day for four weeks. For a couple of weeks now he had the chill, etc., every third day, when it again became tertian. On admission it became quotidian in type, and was very severe. The chill lasted about an hour or an hour and a half daily, and the hot and sweating stages occupied eight or ten hours. The temperature rose to 103° and 104° F. during the hot stage. The spleen is slightly enlarged. It can be felt below the margin of the ribs and is a little tender on pressure. Its vertical dulness measures four inches. All his other organs are healthy.

He was kept under observation three days before being treated. He was then ordered a purgative in the morning, a twenty grain dose of quinine at night, to be followed by a ten grain dose in the morning and a mixture containing two grains of quinine per dose three times a day afterwards.

He had no more symptoms of ague, and left in three days feeling quite well.

Case II.—M. I., wife of last patient, was admitted on the 26th of May. She is a tall sallow woman, 29 years of age, of English extraction, and reared in the Province of Quebec. She has never been out of Canada, nor further west than Lachine. Her family history is good. She is of temperate habits and has never had any illness, except an attack of pneumonia seven years ago. She has been living with her husband in the neighborhood in which he was working (five miles from the city), and they both attribute their illness to drinking swamp water. Her illness began in the latter part of

March last. She first complained of pain in her back and stomach and occasional chilly feelings. These symptoms lasted five or six days, and then she had her first regular paroxysm. The chill lasted about three quarters of an hour, the hot stage about four or five hours, and in the sweating stage she generally fell asleep, and perhaps when it was over feeling pretty well. The fever in this case was of the tertian type throughout and was very regular, the chill coming on about the same hour every day and the symptoms varying very little from day to day. The temperature rose in the hot stage while in hospital to 104°, 105° and 107° F. She was pretty well in the intervals. There was considerable splenic enlargement and tenderness. It extended well forward towards the median line below the lower ribs. The vertical dulness measured seven inches. With the exception of a subinvolution of the uterus all her other organs were healthy. She was ordered a quassia mixture on admission, which she continued to take for eight days, believing that she was taking quinine. She was then ordered twenty grains of quinine at 7 a.m. on the day on which she expected the paroxysm. She had no symptoms on that day.

Two days afterwards she was given ten grains of quinine at 7 a.m. She had a slight feeling of coldness about ten o'clock, but no other symptoms. She was then given two grain doses three times a day with the tincture of the perchloride of iron, and had no return of symptoms afterwards. The splenic tenderness rapidly disappeared, and by the 18th of June the spleen had shrunken to nearly its natural size. She was then looking well and feeling much stronger, and was discharged.

CASE III.—R. E., a laborer, a strong healthy looking man, 30 years of age, was admitted on the 7th of June. He is a native of this Province of Quebec, but has been in different parts of Canada and the United States, though never in any malarious district to his knowledge, except two years ago, when he had a couple of weeks illness on the Welland Canal. He is positive that he had no chill then, but he was laid up for two weeks. He was feverish and "very sick," and was told that

he had "bilious fever." He had no other illness in his life, and was perfectly well until two weeks before admission, when he was attacked with well marked tertian ague. On the second day after admission he had a typical and pretty severe paroxysm, the temperature rising to 105° F. There was no enlargement of the spleen, nor any evidence of disease of any other organ. On the evening following the day on which he had this attack he was given twenty grains of quinine, with another twenty grain dose on the following morning, and a quinine mixture. He had no further symptoms of intermittent fever, and was discharged four days afterwards, feeling quite well.

CASE IV.—W. W., æt. 16, a delicate-looking boy, was admitted June 10th, 1879. Patient is a cab-driver, and for the last nine years has lived in Griffintown, in the vicinity of Young and William Streets. He has never been out of Montreal, except to drive out to Lachine or round the mountain. A curious fact in his family history is that his father contracted ague in Upper Canada many years ago, and had an attack every Spring and Fall afterwards while he lived. His mother died of phthisis. He is of temperate habits, and never had any illness in his life before. He was attacked on the first of June with typical tertian ague. He had one severe attack in Hospital, during which the temperature rose to 105° F. There was slight enlargement of his spleen and some pain in his left side during the paroxysms, but no evidence of disease of any of his other organs. His treatment was the same as in the other cases, and he had no return of any of the symptoms after the first dose of quinine. He was discharged on the 18th, feeling quite well.

A SIMPLE METHOD OF PREVENTING MAMMARY ABSCESS.

BY FRANCIS J. SHEPHERD, M.D., M.R.C.S., ENG.

There is, I suppose, no accident which brings more discredit or gives more trouble to the surgeon than the occurrence in his practice of a "broken breast" case. Many remedies (such

as belladonna, hot oil, frictions, &c.) have been advocated to prevent this painful affection, but I have found none more efficacious and speedy than the following simple plan which has been used for years with great success by old women in country parts: in fact, it may well be called, what indeed it is, an "old wife's remedy." When the gland becomes indurated, painful, and has a glistening red look (symptoms, in fact, of approaching suppuration), take a large piece of ordinary sticking plaster and cut it a circular shape (a larger or smaller disc, according to the size of the affected breast); make a hole in the centre large enough to allow the nipple and half the areola to be seen, and apply this piece of plaster (after heating it) so that it will cover the *whole* breast, and that the nipple will protrude through the aperture in the centre. To make the plaster fit more accurately, its circumference should be deeply nicked at distances of about an inch. The plaster should be left on till the breast softens, or the plaster ceases to exercise even pressure. This simple method, in the half dozen cases I have seen it used, has acted magically, the breast softening and the pain disappearing in the course of twenty-four hours. In one case a woman, who had suffered on several previous occasions from broken breasts, came to the out-door department of the General Hospital with all the symptoms of fast approaching suppuration in her right breast; in fact, I considered that within twenty-four hours I should be obliged to use the knife. However, I said to the students that if there was anything in the plaster remedy, this would be a good case in which to try it. I applied the plaster in the way described above. Two days after, the woman returned and said, with a pleased smile, that it was the only remedy she had ever tried that had done her any good; that on previous occasions every remedy had failed to prevent her having a "broken breast." On examining the breast, I found it quite soft, painless, and with only one small lump of induration on the upper part, which disappeared in the course of a couple of days. In another case, where an abscess, due to depressed nipple, threatened, I applied the plaster as before, and in twenty-four hours there was hardly any induration, and no pain.

In multiparæ, where the breast is dependent, in addition to covering the breast with plaster, I should advise supporting the breast by a band of plaster, 1½ inches broad, passing under the breast from shoulder to shoulder. I may say that I have only used this remedy in cases of threatened abscess, due to distension of the milk ducts, depressed nipples, and obstruction to a free flow of milk, due to exposure to cold. I imagine the plaster acts simply by exercising an even pressure on the breast and giving support to it. I hope that this method will be tried by some of your readers, and that they will give the results of their experience of it, beneficial or otherwise.

Correspondence.

VIENNA, June 20th, 1879.

To the Editor of the CANADA MEDICAL AND SURGICAL JOURNAL:

SIR,—A few notes from this great centre of medical teaching will, no doubt, be of some interest to many of your readers. The Vienna medical school attracts, without doubt, a greater number of foreigners than any other school in the world. This is due in some measure to the eminence of certain of its professors, but principally to the great number and completeness of the special courses. The following courses connected with practical medicine are conducted in a manner that leaves almost nothing to be desired. Laryngoscopy and Rhinoscopy, by Professor Schrötter and his Assistant, Dr. Cubti; the use of the ophthalmoscope by Prof. Jaeger and Dr. Fuchs; diseases of the ear by Profs. Gruber and Politzer; pathological demonstrations by Dr. Hans Chiari; auscultation and percussion by Prof. Schrötter and Dr. Heitler; diseases of the nervous system by Prof. Rosenthal; the experimental physiology and pathology of the central nervous system by Obersteiner; experimental pharmacology, by Profs. S. Von Basch and Exner. Prof. Exner conducts also a very valuable course on practical physiology. The clinical courses on general medicine are seldom attended by foreigners, although they are the most valuable instruction

that is communicated in the whole institution. Bamberger's klinik is especially well worth attending; it is held from 7 to 9 a.m., during which time two cases are examined, comments made and treatment suggested. The student who wishes to devote the whole or part of his time to clinical surgery or midwifery, will find a great number of special courses connected with each of these branches. Even those who are wholly unacquainted with the German language will find that a great amount of practical knowledge can be acquired by attending the practical courses. There has been a gradual falling away of the number of students attending the medical faculty for several years. During the last winter session the number registered amounted to 864, but this number does not include the great majority of foreigners who are not required to register unless they intend taking the university degree.

Professor Bamberger has quite lately made public some excellent observations on Bright's disease. As this subject is one of great practical interest, I thought it would be of some value to your readers to give a rather full account of these observations. The following is from notes taken in the klinik, and from a paper read before the Royal Imperial Academy. To answer the question: What are the cause and effects of Bright's disease? Bamberger examined the pathological records of the Vienna General Hospital during the last twelve years. During this time 19,000 post-mortems were performed, and of this number 2,430 were recorded as Bright's disease. In addition, during the last winter session all kidneys from the post-mortem room were examined by him. In conducting the last investigation Prof. B. was surprised at the great number of diseased kidneys. He had to wait a month before he met with a perfectly healthy kidney. In many of his own cases where during life there was not the least suspicion of Bright's disease, after death it was found to exist. Clouding of the epithelium of the urinary tubules is not included. The Germans speak of parenchymatous and interstitial nephritis, the former corresponds to the "large white," the latter to the "small red" kidneys of English authors. In the examination of a fresh, or better, a hardened specimen, it is at

once seen what an important role the interstitial tissues play in all cases designated as Bright's disease. A more or less considerable increase in the corpuscular elements of this tissue is nearly always present. In pronounced cases this increase is designated as small-cell infiltration, which is considered by some authorities as due to wandering of the white blood cells, by others, to proliferation of the normal elements. Bamberger is of the opinion that the latter view is the correct one, but it is a distinction, he says, of little or no weight. In the parenchymatous form there is not only a considerable celluar increase in the interstitial tissue, but the tissue as a whole is increased in size. In the vessels and canals changes are also regularly found. This form passes by degrees into the true contracted, so that it is impossible to separate it from the other form of the disease. Weigert, assistant to Cohnheim, has quite recently published the results of his investigations on this subject. He comes to the same conclusion as Bamberger, viz.: that there is no essential difference between parenchymatous and interstitial nephritis; that disease of the kidneys is not limited to any one tissue alone, but affects not only the interstitial tissue, not only the epithelial cells, but also the whole cortical substance. Prof. Bamberger instances two cases which throw a considerable light on this subject. The first case was that of a child who died during the third week of scarlet fever. On looking at a section of the kidneys one sees that the parenchymatous changes are predominant,—the canals are filled with fatty, degenerated epithelium, and on a close examination the interstitial tissue is found to be the seat of considerable proliferation. The second case was a girl, aged 13, who had pleurisy and pericarditis in the third week of scarlet fever. In the fourth week there was dropsy and albuminuria. The interstitial tissue was found greatly increased and filled with round cells.

What relations these individual changes bear to each other—whether the interstitial or epithelial change is the primary one—whether the last can be considered inflammatory or a product of retrograde metamorphoses, Prof. Bamberger says cannot be answered at present. Bartels was the first, at least in Germany,

to make a clinical separation between the parenchymatous and interstitial forms of the disease. This separation is somewhat arbitrary. There are many exceptions to it. It is not uncommon to find cases which present all the leading symptoms of contracted kidney during life, and after death the usual parenchymatous changes are predominant. Again, cases frequently present themselves where we would expect after death to find parenchymatous disease, but on the contrary, we find the interstitial tissue mainly involved.

Finally there are the mixed cases. Bamberger gives the following as an example of a contracted kidney being mistaken (during life) for a large white one. A man, aged 44, fourteen days after a severe wetting, came to the klinik complaining of pain in the region of the kidneys, hæmaturia and general dropsy. The urine was rich in albumen and casts. The dropsy diminished under hot baths, but it afterwards returned. Hypertrophy of the heart set in, and fifteen months afterwards he died. The course of the disease throughout corresponded to the usual parenchymatous form. On section, however, the kidneys were found to be typical examples of granular atrophy of these organs.

Prof. Bamberger asks whether it is advisable or not to retain the division of Bright's disease into parenchymatous and interstitial. He is of the opinion that the profession will soon return back to older views on this subject. He considers the division of Bright's disease from an etiological point of view to be of more importance than an anatomical one. He divides it into primary and secondary. Of the 2,430 cases examined, one-third were found to be primary, the remaining two-thirds secondary. He considers that waxy disease of the kidney is sometimes primary. The heart was hypertrophied in 42.6 per cent. of the primary cases, and only in 3.3 per cent. of the secondary cases. Bright's disease was secondary to tuberculosis (including scrofulosis) in 381 cases, almost 16 per cent. Next to tuberculosis stands valvular defects as causes of Bright's disease, viz., 9 per cent. Pregnancy comes third, with 6 per cent.

4th. Diseases of the urinary organs which interfere with the

free passage of urine, as stricture, hypertropy of the prostate, 5.5 per cent.

5th. The various suppurative processes, as caries, necrosis, purulent inflammation of the joints, suppuration in internal organs, chronic purulent skin diseases, 5.2 per cent.

6th. Spirit drinking and cirrhosis of the liver, 4.8 per cent.

7th. Carcinomatous degeneration of various organs, 4.2 per cent.

8th. Emphysema of the lungs, 3.5 per cent.

9th. Typhus and typhoid, 2.4 per cent.

10th. Chronic syphilis, 2 per cent.

11th. Scarlet fever, 0.7 per cent. Prof. Bamberger explains the reason of this low percentage from the fact that the great majority of cases of scarlatinal dropsy are recovered from, and further that only a very limited number of children are admitted into the General Hospital.

12th. Intermittent fever, 5 per cent.

13th. A number of rarer diseases, as cholera, variola, dysentery, scurvy, acute yellow atrophy of the liver, &c.

All these causes may be brought together under three heads. The 1st class includes all those cases in which toxic or infectious substances are introduced from without, or originate in the organism through suppurative and putrefactive processes. Of substances introduced from without, alcohol heads the list; squills and cantharides may bring about similar results. Bamberger is of the opinion that lead does not induce Bright's disease nearly so frequently as it is considered to do. The 2nd class includes those cases where Bright's disease is brought about from the effects of passive congestion, as valvular disease, emphysema and chronic lung infiltration. The 3rd group comprises those cases where the disease in question is caused by retention of urine. It has been experimentally proved that parenchymatous swelling and interstitial nephritis can be induced in animals by occluding the urethra.

It is generally stated that Bright's disease is much more frequent in men than in women. Bamberger's statistics show a

percentage of 55 in males and 45 in females, but when it is considered that twice as many males as females are admitted into hospital, the proportion would be greater in females. As to the complications, secondary results and sequelæ, it was found that hæmorrhage into the brain was present in 10 per cent. of the cases, and croupous pneumonia in 22 per cent., pleurisy in 7 per cent., peritonitis in 2 per cent., intestinal catarrh in 13 per cent., dropsy in 26.6 per cent., fatty degeneration of the heart in 12 per cent., pericarditis, 12 per cent., hypertrophy and dilatation of the heart in 42.6 per cent.

The following case is one of great interest not only to the obstetrician but also to the medical jurist. It proves that uterine muscular action alone is sufficient to cause fracture of the head of the fœtus. A powerfully-built woman, aged 37, was admitted last week into C. Braun's wards, in her ninth pregnancy. The previous eight labors were all severe. During the course of the labor rupture of the uterus took place, and a dead child was removed from the peritoneal cavity by abdominal section. The mother lived 24 hours. On post-mortem the uterus was found to be greatly hypertrophied. A rent 15 ctm. in its long diameter (transverse) was found in the cervical region, through which intestines protruded. The antero-posterior diameter of the inlet was considerably narrowed. On examining the child's head, the parietal bones superiorly were found to be completely separted, and a fracture in the right one 4 ctm. in length. There was effusion of blood upon the meninges.

Diagnosis of Mitral Stenosis:—It is a well-known fact that the characteristic presystolic murmur of mitral constriction is often absent even when there is pronounced contraction of the bicuspid valve. It may be present one day and absent the next. It is of great importance then to be able to diagnose this organic change, irrespective of its pathognomonic murmur. Prof. Lœbel considers that this may be accomplished by the observation of two physical signs, where there is nothing else present to account for their appearance, viz: enlargement of the liver, and an accentuated second pulmonary sound. In two cases where there were no other physical signs present but the above, he diagnosed

mitral constriction, and his conclusions were proved to be correct in each of the cases at the post-mortem.

Dr. Balfour of Edinburgh lays great stress on the value of a "thumping 1st sound" in the diagnosis of mitral stenosis, when the presystolic murmur is absent.

Pneumonia, during the months of February, March and April, has been very frequent in Vienna, and the rate of mortality has been very high. I had occasion to examine twenty-seven cases during ten weeks, and of this number seventeen died. The treatment of pneumonia in Lœbel's wards is chiefly expectant, occasionally only is digitalis administered to counteract heart failure. Prof. Bamberger treats his sthenic cases with antimonials in the early stages. In the asthenic, and latter stages of all, cases he gives camphor. Judging from the results of experimental investigation camphor would seem to be peculiarly adapted for the treatment of pneumonia, not only during the time that heart failure threatens to set in, but throughout the whole course of the disease. Paralysis of the heart induced by the action of muscarin on the inhibitory apparatus can be in a great part removed by the action of camphor, and what is of great practical value this recovery can be brought about by very moderate doses of the drug. Camphor also reduces the temperature of the body; this reduction is more marked if fever is present, and further it has the effect of paralyzing the movements of the white blood corpuscles. One who attends Chiari's pathological demonstrations for sometime will be surprised at seeing so many specimens of pneumonic lungs which were unrecognised as such during life. It is but just to add that the great majority of these cases come from the surgical wards. Among surgeons it is not the custom to make the physical examination of the chest a matter of routine, and hence the reason of so many unrecognised secondary pneumonias. These appear to be especially frequent after abdominal operations. In these cases there is generally more or less extensive peritonitis present also. Both the pneumonia and peritonitis run their course from first to last without any marked subjective symptoms.

The writer has seen a great number of cases of peritonitis following operations on the abdomen, not only in Vienna, but also in Edinburgh. In the great majority of the cases the peritonitis was not attended during life by any noticeable increase in temperature or pulse. Pain and tympanitis were absent as a rule.

During the last year 465 cases of pneumonia were treated in the general hospital; of this number 127 died. The duration of the disease in the fatal cases amounted to 18.7 days, in the recoveries, 21.8 days. In the differential diagnoses between pneumonia and pleurisy great stress is laid by many of the physicians here on the "exquisite tympanitic note," which is very often present in the former disease.

Pulmonary consumption is very common in Vienna. During the year 1877, 1953 cases were admitted into the hospital, the mortality amounted to 55.6 per cent. Both lungs were affected in 1335 of the cases, the right in 371, and the left in 247. Hæmoptysis was present in 696 cases. There was intestinal tuberculosis 187 times, but only three cases of perforation. In 146 of the cases there was a similar affection of the larynx, and 27 of the peritoneum. Then followed the membranes of the brain 19 times, liver 17, spleen 16, kidneys 14, pleura 8, lymph glands 8. Pneumothorax occurred in 24 of the cases. Anal fistula was only present in a single case. In the Vienna school tuberculosis is a general name for chronic lung changes. There is no division of pulmonary consumption into tubercular, catarrhal and fibroid phthisis. All chronic lung changes are designated both by pathologists and physicians as tuberculous infiltration. Pulmonary consumption and pulmonary tuberculosis are synonymous terms.

I have quite recently seen three cases of pericarditis caused by pleurisy, and one case of supposed idiopathic pericarditis followed by pleurisy in Prof. Lœbel's wards. Dr. Heitler who had charge of the cases, considers that pleurisy is not an unfrequent cause of pericarditis. Prof. Ducheck goes as far as to say that pleurisy is a more frequent cause of pericarditis than acute rheumatism. The treatment of pleurisy is purely

expectant. Tapping is only resorted to now when there is known imminent danger of death from the copiousness of the effusion. Rest in bed and the relief of pain by morphia are generally solely relied on.

During the last year 466 cases of typhoid fever were treated in the hospital with a mortality of 24 per cent. The duration of the diseases in the fatal cases was 26.1 days, in the recoveries 35.3. Bronchitis was present in 20 cases, intestinal hæmorrhage in 15, pneumonia in 37, peritonitis in 4, in consequence of perforation twice, laryngeal ulceration in 6 cases.

The treatment of typhoid fever is also expectant. The treatment by cold does not find much favor, unless hyperpyrexia should set in.

Typhoid fever and acute miliary tuberculosis are very frequently mistaken for each other. In one ward I saw three cases within a month diagnosed as typhoid fever, and after death they were found to be cases of miliary tuberculosis. Tubercular meningitis is often again mistaken for typhoid fever, septicæmia, &c. The following case which was under Prof. Bamberger's care, shows the great difficulty that attends the diagnosis of these cases. A young man with tuberculous infiltration of the apices of his lungs and small intestines, was admitted under Prof. B.'s care. Intestinal perforation occurred, setting up perityphlitis, low nervous symptoms set in, and a diagnosis of tuberculous meningitis was made. After death there was not a trace of disease in the meninges, but the great part of the right lobe of the liver was converted into an abscess.

In former years Vienna was notorious for the prevalence of puerperal fever. It is sad to think that it still deserves this fame, especially as the disease in question is due to easily preventable causes. The post-mortems on puerperal fever cases during the last four months, will average at the very least one per day. In nearly all these cases, on close examination, slight transverse ruptures of the vagina could be found.

Prof. Sigmund has recently given expression to his views on the time when the treatment of constitutional syphilis should be commenced. He says the proper time is when the

secondary symptoms manifest themselves—on the appearance of the first skin symptoms, and even then there is no necessity for haste, unless several symptoms or organs are affected, or the variety of the disease is severe, or unless the general physical condition of the patient has suffered. He says that antisyphilitic general treatment in the primary stage exerts no influence on its course, except that in some cases the debilitating course of treatment postpones a cure.

Of those treated locally at the outset 40 per cent. presented very slight secondary symptoms, sometimes scarcely noticeable by the patients themselves. In the milder cases of these secondary manifestations, complete and permanent cure very often followed simple local means.

Experience has also shown that general treatment begun late in the secondary period, is followed by a more rapid and permanent result than if undertaken at an earlier date. Careful attention should be paid to the hygienic and dietetic conditions and of prompt treatment of all complicating constitutional conditions. Although trial has been made of the much lauded Tayuga, by Ziessel, but it cannot compare with mercury as an antisyphilitic remedy.

The following case of removal of the larynx and adjacent parts by Prof. Billroth, is the first operation of the kind on record. A woman aged 45, was admitted complaining of almost total inability to swallow. Carcinoma of the posterior surface of the larynx and anterior surface of the pharynx was diagnosed. Tracheotomy was performed, and nine days later the parts implicated in the disease were removed. It was found after the operation commenced that the disease was more extensive than at first thought. Prof. Billroth found it necessary to remove the whole of the larynx with two rings of the trachea, the greater part of the pharynx, and the œsophagus down to a level with the manubrium, and finally the whole of the thyroid gland. The patient recovered well from the effects of the operation, and in a few days her general condition was much improved. She said that she felt more comfortable than she had done for months. She was nourished through an elastic tube introduced into the

œsophagus and breathed through a tube introduced into the trachea. Professor Billroth proposed to unite what was left of the pharynx and œsophagus, but before doing so he found it necessary to dilate the œsophagus by means of bougies, and six weeks after the operation, while in the act of dilating the œsophagus, violent vomiting set in and the movements of the patient, displaced the bougie into the precœsophageal tissue. This set up mediastinitis and suppurative pericarditis, from the effects of which the patient died, three days after the accident. She lived six weeks and three days after the operation. Professor Billroth has a remarkable successful record in the removal of thyroid glands for tumors. He has had seventeen consecutive successful cases.

To the student who wishes to study the nervous system and its diseases Vienna possesses excellent advantages. During the present summer-session besides the courses already mentioned by Rosenthal and Obersteiner, there are free lectures every Saturday on the pathology of the central nervous system, by Prof. Stricker, daily kliniks by Profs. Meynert, Leidesdorf, Benedick and Schlayer. Professor Meynert gives also practical demonstrations on the minute anatomy of the brain. Drs. Shultz and Fieber gave courses on electro-therapeutics Professor Rosenthal has at present a case of Brown-Sequard's spinal hemiplegia under treatment. The patient is a female aged 26 ; four months ago she fell down a flight of stairs injuring her back. The family history and previous health good. A week after the accident she noticed that she had lost partial control over the left lower extremity, this loss gradually increased during the next two weeks, and in addition she noticed that the left arm was also partially paralyzed. Three months ago she was admitted into the hospital under Prof. Rosenthal's care. Her state then was as follows: There was complete paralysis of motion in the left and of sensation in the right upper and lower extremities. The left arm and leg were hyperæsthetic. The tendon reflex greatly lowered in right arm and leg, but increased on the left side. There was also vaso-motor disturbance with considerable diminution of the muscular sense in the right arm and leg.

The right extremities reacted normally to an induced current. On the left side the electro-contractility and sensibility was increased on the application of this form of electricity. Along the whole length of the spine from the lumbar region up to the middle cervical there is tenderness, especially when pressure is made on the left side. No decubitus or bladder complications. This patient has gradually been regaining the loss of power on the left side, and of sensation on the right side, but the improvement has been more marked in the motor paralysis than in the anæsthesia. At present the left arm and leg can be used fairly well, but there is still decided loss of both superficial and deep sensation in the right extremities.

The treatment used was the iodide of potassium and the use of the continuous current to both the paralysed muscles and anæsthetic parts.

Prof. Rosenthal considers the morbid change in the case to a sub-acute inflammatory action of the cord and membranes limited to its left lateral half.

Facial erysipelas of a severe, and frequently fatal, type, has been very prevalent in Vienna during the last few months. The following is a good example of the great majority of the fatal cases. A stout, and previously perfectly healthy, young man was admitted into the A. K., seven days ago with facial erysipelas, of four days standing. The temperature varied from 103° to 105°.. He complained of headache, and was very delirious at times. He died comatose 10 days after his admission. Meningitis was diagnosed. The post-mortem showed, however, only hyperæmia of the brain and lungs. Meningitis is generally diagnosed in those cases having a similar termination, but it is never found. The only changes in 5 cases were hyperæmia of the meninges, brain substance and lung.

J. S.

Reviews and Notices of Books.

A Guide to the Qualitative and Quantitative Analysis of the Urine; designed for Physicians, Chemists and Pharmacists.—By Dr. C. NEUBAUER and Dr. J. Vogel; revised by E. L. Wood, M.D., Prof. Chemistry Harvard University. 8vo. pp. 551. New York: William Wood & Company, 1879.

This work is well-known to our readers, and it is sufficient to announce a new edition, brought down to the present day, to ensure a fair demand. While the work is practical in its teaching, it forms a complete and scientific manual upon Urinary Chemistry. Chemical analysis of the urine is intended to lead the practitioner to infer, from what is observed, what changes are taking place, and what means should be adopted to avert mischief. We get the results of actual chemical changes, and are enabled thereby to state to a nicety why these changes should be observed. There is another feature of this work which adds to its value. It is separated into two parts. The first part, which is strictly chemical, is by Dr, Neubauer; the second part, by Dr. Vogel, has reference to changes in the urine from a medical point, so that it adds to the value of the work as one of reference by both chemist and physician. The first translation of this work was under the auspices of the New Sydenham Society as early as the year 1863. Since that day many very important facts have been added to our knowledge of organic and physiological chemistry. This edition, the 7th of the series, is brought down to, and contains the most recent advances in urinary chemical and pathological science, we commend it to our readers. A word we have for the very excellent finish of the work as produced by the publishers, Messrs. Wood & Co., of New York. The volume is bound in full leather, with marbled edges and bands, the leather is tinted a deep maroon, which is not readily soiled by use, an objection which

is raised by some against the use of the ordinary white leather binding, so common in use in the United States, it is excellently finished, and forms a handsome library edition.

A Guide to Therapeutics and Materia Medica.—By ROBERT FARQUHARSON, M.D., Edin., F.R.C.P., Lond. Lecturer on Materia Medica, at St. Mary's Hospital Medical School, &c. Second American edition, revised by the author, enlarged and adapted to the U. S. Pharmacopœia, by Frank Woodbury, M.D., Physician to the German Hospital. 8vo. pp. 498. Philadelphia: HENRY C. LEA. 1879.

The mere fact of a second edition of this book having been already called for shows of itself that it has proved a welcome addition to medical literature. The plan adopted in treating of the various subjects is very different from most text-books of this kind. Since the principal object on hand is to present the reader with a concise view of the main physical and therapeutical action of various drugs, the more the corelative of these are prominently exhibited the better. Thus the pages are mostly divided longitudinally in the centre, containing on the one hand the known and demonstrated physiological action of the medicine under consideration, and on the other the diseased condition in which, owing to such physiological properties, it either has been used with satisfaction or might probably be successfully employed. This method of presentment is doubtless very effective, as especially with students, it is calculated to leave a strong impression for the reasons of the uses of various drugs. All the important additions to the materia medica of late years are discussed, and the reader is put in possession of all the well-established facts concerning them up to the present time. Books such as these do a great deal to remove the empiricism still remaining amongst us, and to lead to our practice being based on a much better and surer foundation. As a text-book for the student, and equally as much as book of reference for the practitioner, Dr. Farquharson's volume will be found one of the most generally useful and reliable yet published.

A Practical Manual of the Diseases of Children, with a Formulary.—By EDWARD ELLIS, M.D. Third Edition. 8vo. pp. 213. New York: William Wood & Co., 27 Great Jones street.

The first edition of this work appeared in 1867, and it was then favorably received. Since then it has passed through a second edition, and now (1878) it has obtained a third. The present volume is an American reprint from the third English edition, and is one of the books which Messrs. Woods are now issuing as a library set. The first chapter is taken up with the general points to be noted in an examination of an infant or young child; the general management during the first year of life, and a diet table for children of one year and upwards. Chapter II. treats of general diseases, Scrofulosis, Tuberculosis, Rickets, Syphilis and Acute Rheumatism. Skin diseases are treated of in Chapter III., and a good *resumé* is given of their symptoms and treatment. In the succeeding chapters we find Congenital Affections and Diseases of the New-born, Fevers, Diseases of the Brain and Nervous System, Diseases of the Air-passages and Thoracic Organs, and Diseases of the Food-passages and Abdominal Organs. Under the head of Fevers, there are some good observations regarding the use of cold baths, and a warning-note sounded regarding their too general use. The section devoted to Diphtheria is carefully written, and will repay perusal. In the Chapter on Diseases of the Abdominal Organs, we find no notice of Intus-susception, which ought to find a place even in a work devoted as this is, solely to the medical diseases of infancy and childhood.

Chapter IX. contains a few general therapeutic hints and a formulary. The formulary is very full, and will be found useful. The book ends with a Dietary, which is also very complete. We think that the book at present under consideration will be found useful, especially by students and young practitioners. It is arranged conveniently for reference, and the therapeutics are safe. There is probably more really useful information presented in it than in some more pretentious volumes on the sub-

ject, and without any special claim to originality, the author may rest assured that he has produced a work which will be widely appreciated.

Extracts from British and Foreign Journals.

Unless otherwise stated the translations are made specially for this Journal.

Action of Iodoform.—Högyes (*Archiv für Experiment. Pharmakologie*, x. 3 and 4) endeavours to arrive at a permanent settlement of the discrepancies between the statements made by previous enquirers concerning the toxic and narcotic properties of the compound in question; further to test the statements recently made by Binz with regard to its mode of operation. The following is a summary of the chief results of his enquiry; 1. Iodoform in adequate doses, is fatal to dogs, cats, and rabbits. Death is caused by a rapid paralysis of the circulation and respiration; it is preceded by wasting of the body, but not by convulsions. 2. After, death we find fatty changes in the liver, kidney heart and voluntary muscles. One or two hæmorrhagic extravasations are almost always present in the lower lobes of the lungs. 3. Large doses cause marked drowsiness in the dog and cat; no such effect is witnessed in the rabbit even after a lethal dose. During the period of somnolence, reflex irritability does not appear to be much interfered with. 4. What changes does iodoform undergo before its absorption? If it is introduced in an undissolved condition, the first step is its solution in whatever fatty matter may be at hand (in the intestines, the oily ingredients of the chyme; in the subcutaneous tissue and the serous cavities, the oily constituents of the tissue-juices and serous liquids). The oily solution of iodoform next gives up its iodine to any albuminous principles that may be present; the iodide of albumen thus produced is speedily taken up into the blood, while a few minute coagula and colourless oil-globules are left behind. 5. Precisely the same series of changes occur when a solution of iodine in oil is injected under the skin or into a serous sac. 6. An iodide of

albumen prepared by mixing white of egg with a solution of iodine in sodium iodide, produces narcotic effects in the cat and dog, just like iodoform; like this, moreover, it fails to produce them in the rabbit. Whether we administer iodoform, iodine dissolved in oil, or iodide of albumen, the iodine is gradually eliminated from the system in combination with the alkali-metals. Broadly, we may regard the action of iodoform, locally applied, as equivalent to the prolonged and gradual influence of iodine. Its action on the system after absorption, is likewise in the main, that of iodine, but with some hitherto unexplained peculiarities. —*London Med. Record*, May 15, 1879.

Use of Pilocarpinum Muriaticum in Children's Diseases.— Weiss (*Pest. Med. Chir. Presse*, 1879, 2) has had the opportunity of observing the effects of pilocarpine in fourteen cases where the patients were suffering from nephritis, complicated with general dropsy, following scarlatina. In four cases there existed extensive bronchitis, in two diphtheria, and in one pneumonia of the left side of the lung. In each of these cases the results produced by pilocarpine were most favorable, and the patients could all be dismissed as cured. One of the most important properties of pilocarpine is that it prevents the dropsy from increasing, keeping it stationary without implicating the kidneys, till the latter have recovered their power of secreting urine more abundantly. Two different kinds of solutions were used for the hypodermic injections; a 1 per cent. solution for children under four years, and a 2 per cent. one for children above four years. In such young patients, where collapse seemed to threaten from prolonged illness and great weakness, 4 or 5 drops of ether were added to the solution of pilocarpine in the syringe. The author observed, that whenever he used this mixture, the young patients did not present the phenomena which generally followed the injection of a solution of pure pilocarpine, viz., vomiting, nausea, hiccough, pallor, and feeble pulse. The injections were made once daily into the upper arm, beginning with half a syringeful, and rising to a whole one. The effects of pilocarpine generally appeared after

a few minutes, beginning with a slight flush on the face, which, however, gradually increased, and only disappeared when the perspiration had ceased. The latter set in after three or five minutes, beginning on the forehead and face, and gradually spreading over the rest of the body. The duration of the perspiration was different; in one case it lasted for 1½ hours, in another 3½ hours, in a third case, of very considerable universal dropsy, where the amount of urine passed in the 24 hours was only 150 c.c.m., the secretion lasted for 15 hours, after which, the œdematous infiltration decreased considerably. The quantity of fluid secreted in the saliva and the perspiration were in direct proportion to the amount of pilocarpine which had been injected, and to the strength of the solution. Thus, a 2 per cent. solution always called forth a more considerable secretion of perspiration and saliva than a 1 per cent. solution. Two out of the fourteen patients complained of pains in the abdomen after the injection, and four of headache. In eight cases, the pupil was seen to contract; the contraction began at the same time at which perspiration set in, and lasted from 30 to 45 minutes. The temperature was taken in every case both before and after the injection, and in several of them was observed to fall rapidly after the injection; the decrease, however, never lasted longer than from half an hour to three hours, after which time the normal temperature was again reached. Only in one case, where the perspiration had lasted for 16 hours, the temperature, which had been 40.4 deg. Cent. before the injection, fell to 86.6 35 seconds after it, and did not rise again. The pulsations of the radial artery increased in a minute from 12 to 30; the pulse was full and jerking; this accelleration lasted from 15 to 30 minutes, after which time the pulse regained its previous character. In four cases, the patients vomited. The vomited matter consisted mostly of mucus. After the injection, almost all the children coughed very much; in four cases where there was extensive bronchitis, and in a fifth, which had been showing symptoms of œdema of the lungs and uræmia, the lungs were entirely cleared from the secretion which had accumulated in them by the frequent coughing within 48 hours. In nine cases, there was

a strong desire to micturate immediately after the injection; and, in three to evacuate the bowels. The motions were thin and very offensive, and were passed in great quantity. In a case of constipation which had lasted four days, the bowels were moved copiously immediately after the injection.

There was no notable increase in the quantity of urine passed after pilocarpine had been injected; it was of a much higher colour than before. The following are the author's conclusions: 1. Pilocarpine has proved to be a very successful remedy for children who suffer from nephritis and scarlatina; 2. In giving it to children, care should be taken to begin at first with small doses, which may later on be gradually increased; 3. If the little patients are very weak and are likely to collapse after the injection, a few drops of ether should be added to the pilocarpine solution. 4. The drug produces a very copious and lasting secretion of sweat, such as no ether drug ever has been known to call forth—it acts quickly; 5. In cases of bronchitis, complicated by dropsy, which often produces dyspnœa in children, the affection of the bronchi vanishes very soon after the remedy has been administered.—*London Med. Record*, May 15, 1879.

Prevention of Relapses in Typhoid Fever.—IMMERMANN is of opinion (*Centralbl.*, No. I, 1879) that relapses in cases of typhoid fever are due to the presence of the typhoid poison in the system, except in instances where the patient has committed some error in diet. The latter occurrence can of course be prevented by watching the patient carefully, and the author has endeavoured to prevent the former by putting the convalescent through a systematic process of disinfection. The process consisted in giving the patients daily from 4 to 6 grammes of salicylate of soda for ten or twelve days, beginning from the first day the temperature assumes its normal state. Fifty-one patients were treated in this way, and only two suffered from relapses; one owing to something she had eaten in secret, and the other because, owing to a mistake, the drug had not been given to him immediately after the fever had left him. Fifteen out of sixty-seven patients who had not been

treated with salicylate of soda had relapses. The author concludes from these observations, that salicylate of soda is not only a powerful preventive of relapses in cases of typhoid fever, but that it also would prove very useful in procuring immunity from the disease for the nurses and attendants.

Immermann has also observed that patients who had been treated exclusively with cold water showed a greater tendency to relapse than others who had undergone a combined water and quinine, or salicylate of soda treatment. — *London Medical Record*, May 15, 1879.

Treatment of Impermable Stricture of the Urethra.—At a meeting of the Clinical Society of London (*Lancet*, May 10, 1879), Mr. HULKE read notes of a case of Retention of Urine, caused by Impermeable Urethral Stricture, treated by tapping the bladder above the pubes, and later by external section of the stricture, a catheter passed through the bladder and a staff per penem, as far as the obstruction, being used as guides. The patient, 40 years of age, was admitted into the Middlesex Hospital on November 29th, with retention of twelve hours' standing, the bladder being distended to the umbilicus. He had been treated for stricture twelve years previously. It being found impossible to pass a catheter, Mr. Hulke emptied the bladder by aspiration above the pubes. Twenty-seven hours later, no urine having been passed, a trocar was passed into the bladder above the pubes, and a canula left *in situ*; and on the third day this was substituted for a gum-elastic catheter. During the next few weeks the patient had two attacks of pleurisy. Several unsuccessful attempts were made to pass a catheter per penem, and on January 3d, Mr. Hulke divided the stricture from the perineum, a staff pased through the urethra up to the stricture, and a catheter through the prostatic urethra from the bladder down to it being used as guides. The tough fibrous tissue was divided, and the cathether being withdrawn, the staff was guided into the bladder, and, lastly, another catheter passed over the staff into the viscus. The suprapubic

aperture was allowed to close, and the case did well. Mr. Hulke remarked that the suprapubic tapping was selected in preference to Hunter's and Cock's method, because of the deviation of the urethra to the left. Not that this operation (first suggested by Hunter, and then practiced by Dittel) was intended to supersede puncture through the rectum, but it was suitable for exceptional cases, such as this, It was not more liable to be followed by urinary extravasation, which did not occur in any of Dittel's cases, nor had Mr. Hulke found it to take place: whilst a provincial surgeon had made the same satement, based on an experience of seventeen cases. It admitted further of antiseptic precautions, and had the advantage of allowing the course of the urethra before and behind the stricture to be made out if division from the perineum became necessary. He had some little difficulty in finding the orifice of the prostatic urethra. The suggestion to use a catheter passed through the external wound as a guide to perineal section is made in a foot note appended to the remarks made by Hunter in the collected edition of his writings.

Mr. MARSH said that in *The Lancet* for 1838, Mr. Hursley records a case of impermeable stricture, where he performed suprapubic tapping, and passing an instrument downwards through the stricture, managed by its means to draw upwards into the bladder a catheter passed per penem. Mr. Hulke's paper was very valuable as affording another means for treating a very difficult class of cases.

Some Peculiarities in the night sweats of Phthisis. — ROUSSELOT (*Revue Médicale de l'Est*, January 15, 1879) regards the night sweating of phthisis as entirely subordinated to the pyrexia, the variable course and evolution of which it closely follows; he looks upon it as an effort of nature to moderate and reduce the febrile movement by a diversion to the surface. He also maintains that if, when there exists a considerable rise of temperature, there be no nocturnal perspiration, we get a diversion towards the intestinal surface and diarrhœa appears. Moreover, we often observe a

curious alternation of these two phenomena, one appearing when the other disappears, and *vice versâ*. Hence, he concludes, that it is not always right to check the sweatings, especially when they come on at the commencement of phthisis, and accompany a rapid evolution of the pulmonary tuberculization with high fever and active pulmonary congestion. That in such case, to attack the perspiration is to attack the effect not the cause, and it is not likely, therefore, to be attained with success. But when abundant sweatings occur together, with a normal flow of urine and frequent diarrhœa, then it is necessary to direct our therapeutic efforts to arrest the excessive drain on the system.—*London Med. Record*, May 15, 1879.

Cystitis by Contagion.—*Remarks on the Production of Cystitis by Contagion through the use of Instruments.*—Sir Henry Thompson, in a recent communication to the *British Medical Journal* (May 10, 1879), says: I have long suspected that cystitis is capable of being propagated by the direct transference of inflammatory products from the bladder of one patient to that of another. All are sufficiently familiar with the fact that purulent matter from the vagina, and probably from the uterus also, produces inflammation of the male urethra, and that conjunctivitis may be caused by contact with pus from either source; and I believe it is quite unnecessary to imagine that any specific quality attaches to purulent matter produced in these localities, rendering it more than ordinarily virulent and contagious. Certainly no proof can be adduced that such quality exists; a decision on this point, however, does not necessarily affect the question whether cystitis may be originated or not by contagion.

Every one knows that the operation of sounding the bladder—it may be for stone or for tumor, etc.—is sometimes, although rarely, followed by an attack of inflammation more or less severe. Such an occurrence is, in some circumstances, not unnatural. A delicate organ is mechanically disturbed, and, if force be employed in the process, some inflammation of the mucous membrane is not an improbable result. Hence the extreme importance

of adopting a method and instruments which shall accomplish the object in view with the smallest degree of distension and movement · and also of forbearing to make such an exploration, except in circumstances which manifestly indicate its necessity. In my experience of such cases of this kind as have fallen under my observation during many years, I have remarked that the inflammatory attacks which follow sounding occur in two modes, distinct from each other. Thus, in some instances, the patient has a shiver, occurring within three to four hours of the time of the examination; soon afterwards, the urine is passed too frequently and with pain, becomes cloudy, and some general fever sets in. In such, the cause of inflammation is clearly a mechanical one, and, if the patient be healthy, it soon subsides with rest and treatment. But, in a few other instances, no disturbance occurs until the lapse of forty to fifty hours, or thereabout, after the sounding. The subject of the examination has been in all respects well since the sounding took place, and felt, if anything, only slight soreness during the first few hours following the operation. After the interval named, he experiences a little undue frequency of micturition, loses appetite, is chilly or has a shiver; and by degrees symptoms of cystitis appear, and continue a marked course for a few days, with varying persistence according to circumstances. Usually, the patient attributes his condition "to some cold he must have caught the day after the examination," and by no means attributes his troubles to the instrument, as he infallibly does in the circumstances first described.

Why, in certain circumstances, these phenomena should occur so long after the provocation which must have given rise to them, has, as I have already intimated, frequently afforded me an interesting subject of speculation. But a case has recently occurred, which I have been enabled to watch closely, and which seems to throw light on the nature of these examples of the second kind. I shall give the chief particulars in detail.

A medical man, under sixty years of age, having had occasion, as he thought, to pass for himself a silver catheter (No. 10) daily, had a new one made; there was a peculiarity in its con-

struction, the lower or curved portion, about two inches and a half in length, being separate and attached by a screw to the shaft. Such catheters were frequently made formerly for the purpose of packing in a surgical pocket-case. He passed this daily with great ease during some weeks, on no occasion producing irritation. One day, and this was the only occasion on which he used the catheter for another person, he introduced it into the bladder of a patient whose urine was highly mucopurulent, and who was indeed suffering with severe cystitis. He believes that, immediately after using the catheter, he washed it in the ordinary way. Subsequently, on that day, he employed it as usual for himself; and it is somewhat curious that he did not use it the next day—not because he felt any irritation, but, on the contrary, because he was arriving at the conclusion that the instrument was no longer necessary. The next day but one after his last employment of the catheter, about forty-four hours after, he felt chilly, and micturition was slightly painful. Next day he had some fever, no rigor, but increase of temperature; his urine was cloudy and passed frequently. The day after, he was confined to bed; the temperature varied between 102° and 103° for a few days, and the urine was loaded with mucopurulent jelly-like deposit during one or two days. After more than a week's confinement to his room, he gradually improved and soon perfectly recovered, having in his urine now no trace of the attack; he empties his bladder perfectly, and, in relation to the urinary system, has nothing whatever to complain of.

The circumstances of this case will go far, I think, to suggest the strong probability that this attack of cystitis was caused by the transference of infectious matter, by means of the catheter, from the patient for whom it was once used to the subject of our case. I can scarcely doubt that the exceptional formation of the instrument, the screw-attachments which on examination, moreover, appeared to be a little loose, offered a chink, in which matter lodged, especially as this lower part was not detached for cleaning—the eyes of the catheter serving that purpose, as in the ordinary instrument.

It may very naturally be urged: if inflammation be so easily

produced through contagion by passing instruments not scrupulously rendered clean, so numerous and varied as these are, and so frequently used, how is it that cystitis is not a very frequent result—for this it certainly is not—of ordinary catheterism?

I think the reason is not far distant, and that it may be found in the action of the catheter itself. The moment the instrument reaches the bladder, the urine rushes through the orifice, and carries off in its current any minute particles which may be adherent to its extremity. In bougies, no opening for the lodgement of adventitious matters exists, and any risk of contgaion by their use must be considerably less. Besides, the action of the urethra itself, clinging to the instrument and sweeping off, almost at the external meatus, as it does by that action, most of the lubricating material, is a sort of defence to the internal passages from danger. On the other hand, in examining a bladder, the sound is rarely used as a catheter, and although it often has an eye in its extremity, the handle is closed, and urine seldom passes through it. The various movements of a sound in searching the bladder are calculated to detach, within its cavity, foreign particles, if any such exist, in or about the eye.

The practical question, how to prevent any transference of matter to the bladder and urethra, in employing instruments, of any and every kind, presses for solution. It is one of extreme importance to all concerned, and the occurrance of an accident of the kind described, however rare it may be, is one the bare possibillity of which cannot be contemplated without extreme repugnance.

After some consideration and some experimental trials, I think the following recommendations will render contagion by instruments impossible.

Firstly: All metal instruments—catheters, sounds, and lithotries—after use, at any rate in cases of muco-purulent urine, should be plunged for a minute or two into boiling water, to which either a little comon soda or a little carbolic acid has been added. If the boiling point of water be not considered absolutely sufficient, a strong solution of chloride of

zinc in water may be used. At the strength of twelve per cent. solution, the boiling point is 22° Fahr., or eight above that of boiling water. For some years past, as advised in the last edition of my lectures, I have always placed all gum and other catheters and bougies in a bath of weak carbolic acid immediately after use.

Secondly: I have more recently—that is, since the occurrance described—added a solution of carbolic acid to the oil used for lubrication of instruments. Oil being the remedial agent for the caustic effects of carbolic acid, there is no danger in applying to the urethra a comparatively strong solution of the acid in oil, since no irritating effect whatever is produced, and the disinfectant influence is unimpaired.

For the last two months, I have used the following formula, and can, therefore, guarantee that it is absolutely unirritating; R Acidi carbolici med. gr. xii; olei olivæ ʒi.

A free use of this as a lubricant to all instruments before using will, I believe insure, at all events in combination with the modes of cleaning just described, safety from the occurrence of any contagion by means of instrumental treatment.

Traumatic Tetanus—*Case of Traumatic Tetanus, treated with the hypodermic injection of Atropia; amputation of great toe; recovery*—By Surgeon D. H. Cullimore, F.R.C.S.I., &c., ex-residency surgeon at the court of the king of Burmah.—In April, 1875, when the highest temperature in the shade was 98° F., with a great diurnal variation, the rainy season having just set in, a Lascar, a camp follower, was admitted into the hospital for details at Rangoon, Burmah, suffering from a lacerated contused wound of the great toe, inflicted some three days previously by the tread of a horse. The patient (a powerful muscular man, aged twenty-eight years) was confined to bed, and a rice poultice, medicated with laudanum, applied for two days, when, no improvement taking place, and the condition and seat of the injury being such as is frequently followed by tetanus, the toe was amputated, with the object of removing what I was afraid might become the exciting cause of that decease, when, some-

what to my surprise, in about fifty hours after the performance of the operation, the symptoms of tetanus became manifest —first, by yawning and listlessness; secondly, by stiffness of the muscles of the neck and the abdomen, accompanied by the usual expression of face; and, lastly, and later on, by spasmodic contraction of the abdominal muscles and opisthotonos, which latter continued for about six hours on the fourth day from the inception of the disease.

As this was the fourth case that came under my notice in the space of six months, one of which was treated with chloral, and the others with hypodermic injection of atropia in combination with morphia, and as all three terminated fatally between the ninth and the twelfth day, I felt convinced that chloral would prove a failure, and judging from the physiological effect of morphia and atropia, which is the reverse of each other, at least in so far as their action on the pupil is observed, I determined to try atropia alone, more with the object of noting its action than with any but a vague hope that it might be the means of preventing a fatal issue. On the first appearance of the symptoms one-sixtieth of a grain of atropia was injected hypodermically over the dorsal spinal region, and was repeated three times daily. On the morning of the second day one-fortieth of a grain was injected every four hours, and continued for six successive days, till the spasms had entirely ceased, and the stiffness disappeared from all but the muscles of the neck and face, which, as they were the first to become affected, continued longest under the influence of the disease. On the eighth and ninth days the dose was reduced to one-sixtieth of a grain twice a day, and subsequently reduced to one-sixtieth of a grain at night for a further period of two days, ending on the evening of the eleventh day from the commencement of the disease, when the patient, though not yet cured, was well out of danger, and in a fair way to recovery.

I should have mentioned that the bowels were constipated throughout, and were acted upon by four grains of calomel with forty grains of compound jalap powder, administered every other day, and that after each evacuation the patient invariably expressed himself "much lighter" and relieved.

Under the influence of tonics and nourishing diet, with an occasional purgative, such progress was made that on the twenty-sixth day from his admission into hospital, and on the twenty-first from the manifestation of tetanic symptoms, the man was discharged. During his stay in hospital, and within the space of nine days, two grains of atropia were introduced into his system, which caused neither dilatation of the pupil nor any continued increase of temperature ; in fact there was no ascertainable physiological action, with, perhaps, the exception of drowsiness and slight occasional hyperæsthesia of the surface which I am now more inclined to connect with the disease than the remedy.

Though this case occurred so long ago, the facts may be relied upon, as the notes were taken at the time, but not published for want of leisure.

Remarks.—The points illustrated by this case are :—

1. That tetanus—i. e., a series of reflex phenomena depending upon an over-excited or congested state of the brain, the spinal cord, and their membranes—is capable of being relieved, or even cured, by atropia, when administered in comparatively small doses, extended over a certain period of time according to the severity of the symptoms ; though we know from the experience and experiments of Drs. Harley, Fraser, and others, that when given to its full physiological effect it produces excitement and congestion of the cord, followed by the usual reflex results, as jactitation, muscular spasm, and convulsive fits.

2. That the administration of the medicine was not followed by any of the easily recognizable symptoms of the drug (two grains of which has caused the death of a healthy adult when given in one dose), proving both the tolerance induced by the disease, and, perhaps, also illustrating the homœophatic theory or formula, *sine* the infinitesimal system of dosage.

3. That amputation of the injured part, strongly recommended by Larrey and others, even after the supervention of tetanus, though it may perhaps help to lessen the severity of the disease,

does not act as a prophylactic, and should, I think, never be had recourse to after the symptoms have declared themselves. It would then be injurious, for the peripheral irritation would have become central, and independently dynamic. For the same reason, the division of nerves should not be resorted to. In two cases where I examined the nerves after death I failed to perceive that they differed in any way from those of the opposite side. In one of these there was slight congestion of the membranes and softening of the cord in the lumbar region, and in the other a peculiar cloudiness of the cord, which may, however, have been due to post-mortem changes. Yet it is certain that there is some lesion, though in every case we may not be able to perceive it. This lesion should be looked for in that portion of the spinal cord with which the nerves from the affected part first communicate.

4. If the line of treatment adopted in this case should be found beneficial in others of the same disease, I would suggest that it might be extended, with such modifications as may be necessary, to the treatment of such allied diseases as epilepsy, puerperal convulsions, and hydrophobia.—*The Lancet.*

When shall the Lying-in Woman get up?—O. KUSTNER took occasion in the obstetrical clinic at Halle to test the value of Goodell's suggestion relative to the getting up period after labor, in the first days after delivery. He experimented with sixteen women whom he allowed to get up whenever they felt like it. Four got up on the first day, two on the second, three on the third, and seven on the fourth day. They remained up according to pleasure. Evacuation of the bowels was essentially better, the secretion of urine was not lessened, and of sweat but little lessened; the appetite was good. The loss of weight in these cases was not abnormal, although the lochia were more free. Involution of the uterus took place *en regle*. But as three of the cases showed fever, which the author thought due to maltreatment by exercise of the physiological wounds of the genital organs, and as this

danger is always imminent, Küstner advises that lying-in women remain in bed about one week. In private practice the physician will be chiefly guided by the condition of the discharges, and will demand that patients remain in bed until all bloody discharges, or coloration of discharge, shall have ceased.—*Berlin Klin. Wochenschrift. The Am. Med. Bi-Weekly.*

Chloral Hydrate.—*Antagonistic and Antidotal Powers of Chloral Hydrate.*—Dr. Husemann found that in rabbits chloral hydrate acted as an antidote to strychnine, to the combination of strychnos bases known in commerce by the name of leucine, and to thebaine, which produces tetanic symptoms, and at the same time diminished sensibility; the chloral controlled the spasms, and, within certain limits, warded off death. On the other hand, when non-lethal doses of chloral hydrate were administered to rabbits poisoned with ammonium chloride, the fatal termination resulted more rapidly than when lethal doses of either ammonium chloride alone or of chloral alone were employed, probably because of the combination of the paralyzing effects of both drugs on the respiratory centre. The spasms excited by the ammonium chloride were, it is true, relieved or even entirely controlled by non-lethal doses of chloral hydrate, but still death ensued.

Dr. Husemann found the antidotal power of chloral hydrate to be much less against codeine than against picrotoxin. The chloral controlled the spasms and saved life when only the minimum fatal dose, or the minimum dose increased by one-half of codeine was administered, but it was unable to do so when double the minimum dose was given. On the other hand, the life of the rabbit could be saved by chloral when even five times the minimum lethal dose of picrotoxin had been administered. Hence it would be incorrect to assume that because chloral is a powerful antidote to picrotoxin, it is equally so to the other so-called cerebral irritants.

Against calabarine the action of chloral is the same as codeine; in poisoning by baryta, however, it is not even able to relieve the symptoms, far less to save life. In poisoning by

carbolic acid it does not completely control the spasmodic muscular movements, nor is it able to ward off death, even when only the minimum lethal dose of the acid has been administered. On the other hand a combination of lethal or of non-lethal doses of carbolic acid and chloral hydrate causes a more excessive depression of temperature than is observed in acute poisoning by carbolic acid, or by chloral alone.—*Med. Record, N.Y.*

Deaf-Mutism. — *Case of supposed Deaf-Mutism; Eustachian Closure; Moist Catarrh of Tympanum; recovery.* By T. Wemyss Bogg, M.B., M.R.C.P. Lond.—In August last, at the Christ Church Infant Nursery, in this town, my attention was directed to an older child, who was stated to be an inmate because of being deaf and dumb. Never having inspected the ears of a deaf-mute, I asked permission to examine hers, and on doing so a few days later I learned that the deaf-mutism was not absolute, and obtained the following history.

Jemima B——, aged five years; had two maternal uncles who became stone deaf; had scarlet fever at eleven months; no otorrhœa, no convulsions, but has been deaf ever since. Was unable to go to school, or hear passing vehicles.

August 13th, 1878.—Child hears when spoken to in a loud voice; puts a watch to her ears; smiles when a tuning-fork is placed at her right ear. Tries to imitate some sounds, and can say imperfectly about twenty words—viz., Freddy, Johnny, dada, mamma, Bob, get away, leave off, one, two, three, four, five. Cannot ask for anything by name; palate not cleft. Right membrana tympani entire, rather opaque; cone of light visible. Left membrana the same, partly hidden by wax. On learning these facts, I concluded that treatment with Allen's nasal bag would either relieve or cure her deafness, and applied it to her nostrils several times every day, or every other day, from August 14th to Sept. 13th, afterwards less frequently. After the first application she appeared to hear my voice better.

16th.—Her mother says she certainly hears better. Syringed left ear and removed a considerable quantity of hard wax.

Several enlarged vessels seen on malleus; moist sound in ear heard on using Allen's nasal bag. She heard the nurse speak to her this morning.

17th.—While lying in bed this morning, lifted up her finger as a sign to listen while a cart was passing.

21st.—Seems to hear better when spoken to; the voice has not to be much raised. Has tried to imitate the voices of the children singing, but can only attempt to utter "Oh, I say." Tried to say "lady" when a visitor came.

23rd.—Hears the knocks at the door. Air enters tympanic cavity with a drier sound; left membrana tympanic fibrous-looking; a bloodvessel crosses it midway down behind maunbrium; cone of light imperfect.

24th.—Drier sound with nasal bag. She pointed up to the sky when it was thundering to-day; had never noticed it before.

25th.—Tried to say "flower" when the word was loudly uttered to her.

28th.—Hears them speak in low tone, and hears light knocks at the door.

31st.—Heard thunder again, though it was not so loud; frequently hears passing vehicles; tries to say "Put that down" when the words are spoken to her with moderate loudness.

Sept. 3rd.—Can hear if called when she is out of the room; says "ake" when I say "cake"; hears her playmates cry, running and taking them toys to soothe them. Right membrana tympani wrinkled as if sodden; tympanic plexus visible; left membrana tympani smooth in most parts, opaque behind malleus; no plexus visible.

5th.—Has been busy making the children in the crèche say "Poor Bob" after her and, shaking them well if they failed. Heard street music to-day for the first time.

13th.—Tries to say "sugar," "butter." Has tried to repeat the names of the things in the ante-room, and to call the children by their names.

25th.—Tries to pronounce the names of the things on the alphabet blocks when they are repeated to her; much difficulty with "viper."

Oct. 5th.—Can say "spoon," "apple," "no more," pretty clearly. Went into a shop and asked for "apple," which she bought.

11th.—When standing with her back to the fire she heard a cinder fall out of the grate.

14th.—Tries to repeat words she hears others mention in conversation. Was taught the word "moon" a few days ago, and repeated it on seeing the moon to-day.

Nov. 9th.—Talks better; says "Pick that up" distinctly.

30th.—Notices the railway whistle. Repeated the words "Jack Frost" after her mother. Calls her doll "Judy," and says "No, you," on hearing the words uttered.

After this date I saw no more of the child, as her parents removed to Freshwater in the Isle of Wight; but, writing on April 16th last, her mother says: "I feel very much pleasure in informing you that my little girl has very much improved in her hearing, and wonderfully in her talking. She can say distinctly all her alphabet, and count her figures up to 10. She will say, 'Dada made that,' 'Mamma gone out,' 'Tea please, mamma,' but she cannot manage more words in one sentence."

From Aug. 26th to Sept. 13th both Allen's and Politzer's nasal bags were employed, but subsequently Allen's alone, in consequence of the child's resistance to Politzer's. The only additional local remedy was an iodine embrocation applied, but irregularly, behind the ears. The treatment was obvious enough. She was unsuccessfully treated a year or two previously, but only during a short period, I believe; and a friend of her mother's informed me that she had on former occasions attempted to teach her various words, but being imperfectly heard they were speedily forgotten. From the above report, in which only *new* manifestations of speech and hearing are detailed, it appears probable that had treatment been delayed much longer the child would have become permanently deaf and dumb. This case also shows the desirability of watching patients after scarlet fever, to note if their hearing is impaired, before ceasing to attend them.

The pathology was evidently moist catarrh of the middle ear,

with occlusion of the Eustachian tube; and when the latter was kept permanently open by means of the nasal bag, the fluid gradually escaped, and the structures regained their normal state, though probably some thickening remained. The progress was therefore rapid until the fluid was removed, evidenced by the sound becoming dry on the use of the nasal bag; afterwards the remaining congestion subsided only slowly, though steadily, the order in which sounds became audible being apparently, first, grave tones, like thunder and the rumbling of vehicles, then sharper ones by degrees, ending with the railway whistle.

The child suffered from gastro-enteric catarrh, due to improper food, but was well in other respects, and appeared very quick and intelligent.—*The Lancet.*

Cysticerci in the Brain diagnosticated during Life.—A case of this character is recored by Dr. Joseph Pollak in the *Wiener Med. Presse*, No. 47, 1878. The patient was a boy eight years of age. Examination of the pulse, temperature, thoracic and abdominal viscera failed to reveal anything abnormal. The boy complained of excruciating headache, and his piercing cries were loud enough to be heard at quite a distance. Very shortly after his first visit the attendant was recalled, when he found the pupils dilated, the urine and fæces passed involuntarily, the abdomen distended; headache was still severe. Every few hours, attacks of an epileptiform nature recurred, while in the intervals there was a remarkable absence of all these symptoms. At one of his visits just after prescribing a cathartic, he had occasion to examine the stools, where he found portions of a tænia. The presence of this, in connection with the other symptoms, at once aroused the suspicion that he had here a case of entozoal origin. At his next visit he found the patient comatose, and on examination of his pupils found, to his surprise, what proved on a closer examination to be a cysticercus in the anterior chamber. He at once pronounced the case one of cysticercus of the brain. The patient died shortly afterward, and the diagnosis was fully verified.—*Atlanta Med. and Surg. Journal.*

CANADA

Medical and Surgical Journal.

MONTREAL, JULY, 1879.

BILL.

AN ACT TO FURTHER AMEND AND CONSOLIDATE THE ACTS RELATING TO THE PROFESSION OF MEDICINE AND SURGERY IN THE PROVINCE OF QUEBEC.

We were somewhat surprised to receive a bill to further amend the act under which the profession in this Province is governed, and on looking it over we observe that it is a literal transcript of the present act, with a few alterations and additions, but whether this is an improvement on the present act is a question which we shall leave open for further comment. It is passing strange and somewhat suggestive, that this bill should be submitted to the Legislature on the eve of the dissolution of the present Board. The present act was assented to on the 28th December, 1876. It became law just before the triennial meeting of the profession for the election of a board of Governors, which would have taken place under the old Act, and although many important vested rights were surrendered for the general good, yet it would seem that the same restless spirit is abroad, and with an apparent view of opening again the doors of the College to defaulters and all comers, a new bill is inaugurated just before the coming general election, which is to take place in July, 1880. We should be sorry to suppose that the promoters of this bill of amendment have any ulterior object in view. Nevertheless we must say that it is hardly decent for a few members of the profession, forty in number, if all are agreed to these changes, to submit a bill, and endeavour to hurry it through the Legislature, without first obtaining an expression of opinion from the profession at large.

We learn by the daily papers that a committee of the House has been struck, presided over by the Honorable Dr. Church, and that it has adjourned until Tuesday next, 29th July, so as to give the profession an opportunity of expressing an opinion as to the desirability of the changes demanded. Through the courtesy of the Hon. Dr. Church we received a copy of this bill, but we would ask, Can an expression of opinion from the profession at large be obtained in the time allotted, *seven clear days?* If alterations of a technical character are demanded to make the present act a legal one, no dissenting voice could in reason be raised; but to do away with the present act, to begin anew, seems to us a very objectionable feature. It cannot be urged that we are without legislative protection. We are all interested in seeing the best interests of the profession and of the public protected. There are some clauses in the present act which might with advantage be amended. The method of election of Governors. as at present conducted, is not calculated to yield an independent selection of representative men. If it be desirable that the profession, as a whole, should take an interest in the management of the College, the entire Province should be divided into territorial electoral districts, and each territorial electoral district should have the right of electing its own representative. At present the election is conducted by the profession generally at a mass meeting, hence any man who attends the meeting, and has a large number of friends in the cities, can carry a vote, although probably, had he been left to his own territorial electors. his name never would have come up for election. This is a subject of very great importance to the profession as a whole. For instance, in outlying districts, who better able to select a delegate than the men resident in that district? By adopting this method, we think a better and more independent expression of opinion would be obtained, and each and every member of the profession would take an interest in the affairs of the College. But we may, with advantage, inquire into some of the changes that are asked for in this bill. The very first clause repeals all acts having reference to the study or practice of medicine, surgery or midwifery in this Province

of Quebec, as well as specially naming the act which was passed in 1876—" as well as the Act 40 Vict., chap. 26, intituled," &c.

According to the second section, " All persons resident in the Province of Quebec, and licensed to practice and actually practicing * at the time of the passing of this Act * * shall be and are hereby constituted a body politic," &c., &c.,—so that this bill is intended to be a fresh start, to take in all persons whether they have complied with the present law or not, whether they have contributed to the funds of the College or not.

In section IV. a change might with advantage be made. As at present, it reads, " provided always that not less than two members out of the city members shall be delegates from each of the Universities, &c. Now we hold that the Universities should, without doubt have representation, but that two members from each University is sufficient. The clause reads that " not *less* than two out of the city members," &c., but it does not limit the number to two ; had it done so, we would not to-day have on the Board of Governors, four members as representing one school, to the exclusion of two men from the outside profession. Again, it is stated in the bill of amendment that the delegates, before taking their seats, must have their appointments ratified by the College of Physicians and Surgeons of the Province of Quebec. Now this will lead to endless trouble and obstruction to the proceedings of the College. The Board of Governors is not complete, unless the whole number, 40 Governors, has been elected. Let us for the sake of argument, suppose that the Board of Governors did not ratify the appointment of the nominee of any University, they could not work. Forty must be their number ; if they lack the number, 40, they are, by the act, no College ; how, then, can they ratify the nomination of the Universities. This clause is an anomaly—we do not quite understand it. It appears to us that the legal constitution of the College consists in the election of forty Governors, but in no place are we informed that 32 elected Governors can ratify the appointment of the eight nominees of the schools.

In this matter we think that the schools should possess independent action, and have the right to nominate their own

delegates, who, by virtue of such selection, should become Governors of the College; but that power should be limited to two representatives only for each University or incorporated school.

Again, in clause 3, section 4, a change might with advantage be made, as at present, and in the amended bill, in case of any death vacancy or resignation, the Board of Governors are given the privilege to "fill up such vacancy from amongst the eligible "members of the College in the city or district where such "vacancy shall have occurred." This is a very summary way of proceeding, and would have to be altered, provided the system of each district sending its own representative be adopted. Now let us remark on this point that the profession is being taxed every year to contribute to the funds of the College, and as tax-payers they ought not to be disfranchised, but should be given the right of electing their own delegate and of sending him to their medical parliament. How would it be, in case of a death vacancy, or of a resignation of any member of the House of Commons, or even of the Local Legislature, if the members of the House should proceed to elect a resident from the city or district where "such vacancy shall have occurred"!!! What a howl of indignation would there be throughout the country, and how it would strike at the principle of the independence of Parliament.

In section VII we read, "provided that such diploma shall have "only been given after four consecutive years of study of the "medical profession, or after four terms of consecutive lectures "from the date of his admission to study, and according to the "requirements of the existing law." Now we may remark that some Universities divide their courses of lectures into terms, and that during a six months course there may be three terms, so that we think this clause ought to be a little more explicit.

Section XI is a new clause; it provides for the examination of persons coming from recognized Colleges outside of Her

Majesty's dominions, a power which was not before held, and is not in any way objectionable.

At section XII, clause 2, we read that the Board of Governors shall have power "to examine all credentials, certificates "of admission to study or of attendance at lectures, and all "other documents purporting to entitle the bearer to a license "to practice, and all diplomas sought to be registered in this "Province, and to oblige the bearer of such credentials, "diplomas or other documents to attest on oath (to be admin-"istered by the Chairman for the time being) that he, &c."

Now either this is a Registration Act or it is not. If it is, then should the register be open at all times, and the Registrar should have the power, with the consent of the officers of the College, to enter the name of any applicant who holds documents that legally entitle him to the certificate of registration. We do think it unwise to throw open the door of the College to all applicants at all times when most convenient to themselves, but occasion may arise when not to register a name because the Board is not in session would be to do a man entitled to it positive injustice, and a certain discretionary power should be granted to the officers of the College, which, for good and justifiable cause, they should be permitted to exercise.

We have made these few remarks with a view to drawing attention to this Bill, and to give our readers an opportunity to judge of the nature of the changes which are asked. We hope that there will be no hasty legislation on these points. We have an act which is sufficiently effective—it may not be perfect in all its parts, but it is good enough for the purpose intended, and under it we can work with safety for years to come. We can agitate amendments, and have them fairly discussed by the profession. We invite discussion, and throw open the columns of this Journal for the purpose. If we look abroad we observe that the profession in Great Britain has been knocking at the door of Parliament for several sessions, and yet no agreement has been arrived at, nor is it nearer a solution of its difficulties to-day than it was in 1874, when the first demand

for medical reform was made. The interests involved are numerous, and by hastily carrying an ill-advised measure no satisfaction will be given to any person, and changes will have to be asked for at each session of Parliament, which will lead to expense and probably endless difficulties.

CANADA MEDICAL ASSOCIATION.

The Annual Meeting of this Association will take place at London, Ont., on Wednesday, 10th September next, when it is hoped there will be a full representation of the profession both east and west. We understand that several very important papers will come up for discussion, as also a proposal on the part of the British Medical Association to in some way become connected with it. We are unable to state whether any definite proposal has been made, coming officially from the parent Society, but we are aware that it is at least considered desirable by leading members of the profession in Great Britain that something more than fraternal intercourse should unite our Associations. We give below a circular received from the Secretary, which speaks for itself:—

CANADA MEDICAL ASSOCIATION,

MONTREAL, 23*rd July*, 1879.

DEAR SIR,—I beg to inform you, by direction of the President, Dr. J. D. Macdonald, that in consequence of the opening of the Provincial Exhibition, at Toronto, on the 3rd September by their Excellencies the Governor-General and H.R.H. the Princess Louise, he has, at the request of several members of the Association, deemed it advisable to *postpone* the Annual Meeting until Wednesday, the 10th of September next, at place of appointment, London, Ont.

A. H. DAVID, M.D.,
General Secretary, Canada Medical Association.

A PEN WORTH RECOMMENDING.—We have been favored with samples of the celebrated Spencerian Double Elastic Steel Pens, and after trying them feel justified in highly commending them

to our readers. They are made of the best steel, and by the most expert workmen in England, and have a national reputation for certain desirable qualities which no other pens seem to have attained in so great perfection, among which are uniform evenness of point, durability, flexibility, and quill action. It is thus quite natural that the Spencerian should be preferred and used by professional penmen, in business colleges, counting-rooms, Government offices, public schools, and largely throughout the country. Indeed so popular have they become, that of the "Number One" alone, as many as eight millions are sold annually in the United States. The Spencerian Pens may be had, as a rule, from any dealer; but when not thus obtainable, the agents, Messrs. Alexander Buntin & Co., 345 St. Paul Street, Montreal, will send for trial samples of each of the twenty numbers on receipt of twenty cents.

Medical Items.

The summer course of lectures at McGill University was largely attended, and closed on the 11th July instant.

A number of medical gentlemen proceeded to Quebec on the 28th instant, to confer with the Committee of the House of Assembly touching the new Medical Bill. It is strange they were all University Professors; there was not a single individual representing the outside profession.

John B. Lawford, M.D., C.M., McGill University, 1879, passed his primary professional examination before the Royal College of Surgeons, of England, for the diploma as member, on the 9th inst.

David F. Gurd, M.D., C.M., McGill University, 1879, passed before the Royal College of Physicians, of London, and received the License of the College on the 9th inst.